

2019 Annual Report and Form 10-K Dear Fellow Shareholders,

2019 proved to be a challenging but rewarding year, and marked another significant period of driving digital transformation and innovation across DFIN. As a leading global risk and compliance solutions provider, we continued to help our clients navigate regulatory and technological change by leveraging our domain expertise, enterprise software and strong sales and services organizations.

Over the last three years, we have made steady progress against our strategic priorities to change our mix of business, protect our current market position and reshape our corporate culture. Combining fresh leadership with our existing industry expertise has helped transform the way we build and deliver solutions to our clients. We believe that we have a significant opportunity to leverage our client relationships and domain expertise to deliver new solutions to the marketplace and expand the addressable market of our existing solutions, while also improving the efficiency and profitability of some of our offerings.

In 2019, we invested across our product portfolio, delivering key enhancements to the market, benefiting clients and leading to increased SaaS revenue for DFIN. Our investments are paying off, with SaaS solutions revenue as a percentage of total revenue growing to 21.5% in 2019, an increase of 3 percentage points over the prior year, and an increase of nearly 8 percentage points since DFIN became an independent company. Total revenue of our SaaS solutions is now approaching \$200 million annually, with high incremental margins. Finally, we are proud of the industry awards that we won in 2019 for our SaaS products, with Venue recognized as The Americas and Global M&A Virtual Data Room of the Year and FundSuiteArc winning the Fund Intelligence Operations and Service Award for Best Regulatory Reporting Solution.

In our traditional businesses, we continue to maintain our market-leading position as the largest SEC filer for both public companies and mutual funds. In Investment Markets, we increased our share of total fund filings during 2019, as more firms chose DFIN to handle their complex filing requirements. While in Capital Markets, even with mergers & acquisition market activity down significantly from 2018, we were the chosen vendor for a significant number of the largest high-profile transactions that came to market. Looking forward, we are in a strong position to capitalize on any rebound in Capital Markets transactional activity.

Continued cost discipline and an improved revenue mix, driven by SaaS revenue growth, led to strong non-GAAP EBITDA margin improvements throughout the second half of 2019, keeping us on strong footing heading into 2020. Prudent management of our assets in 2019 resulted in the sale-leaseback of a printing facility, as well as the sale of a portion of our ownership stake in a minority investment, both at large gains, generating over \$43 million in cash that we used to further reduce our debt. Since 2016, we have reduced debt by \$340 million, ending 2019 with net leverage of 2.0x, which is below our targeted range, increasing our financial stability and flexibility to deploy capital in the future.

Entering 2020, while our immediate focus is on helping our employees and clients deal with the impacts of the COVID-19 outbreak, our strategy to grow our SaaS revenue while maintaining our market position in our traditional lines of business remains consistent. We will continue to look for opportunities to invest in profitable organic growth opportunities and capitalize on highly-profitable transactional activity when it returns. We will also explore other sources of growth, including strategic partnership opportunities to provide additional solutions for our clients. While continuing to invest in growth, we are also working on other ways to reduce costs and accelerate our business mix toward SaaS and tech-enabled services revenue. We are taking a broader look at client and product profitability across all of our offerings, searching for opportunities to exit or reprice lower profitability revenue streams, while further optimizing our manufacturing platform in advance of the SEC rule 30e-3 regulatory change that will significantly reduce demand for printing starting in 2021. This business optimization effort will help us accelerate the path to sustained organic revenue growth by lowering our overall print exposure.

We are building the right solutions in moments that matter and delivering exceptional value to our clients. While the significant progress we achieved in 2019 was partially masked by the continued secular decline of our print offerings, as well as the cyclical decline in overall transactional activity, we are proud of our accomplishments and remain committed to our strategy. We believe this commitment will allow us to capture the significant opportunities in front of us and deliver superior returns to our shareholders.

Thank you for your feedback, ideas and support, as well as your investment. We look forward to continuing to share our successes with you for years to come.

Sincerely,

Dan Leib

Chief Executive Officer

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

| × | ANNUAL REPORT 1934 | PURSUANT TO S | SECTION 13 OR 15(d) OF | THE SECU | RITIES EXCHANGE ACT | OF |
|--------|---|---|--|-------------------------------------|---|------------|
| | | For the fi | scal year ended December | 31, 2019 | | |
| | | | OR | | | |
| | TRANSITION REPO OF 1934 | ORT PURSUANT | TO SECTION 13 OR 15(d |) OF THE S | ECURITIES EXCHANGE A | ACT |
| | | For the tr | ansition period from | to | | |
| | | Cor | nmission file number 1-377 | 728 | | |
| | Don | | inancial So | | ıs, Inc. | |
| | Del | aware | | 30 | 5-4829638 | |
| | (State or other | er jurisdiction of | | | R.S. Employer | |
| | = | or organization) | | Ider | atification No.) | |
| | 35 West Wacker D | rive, Chicago, Illin ipal executive offices) | 1018 | , | 60601 ZIP Code) | |
| | ` . | • | e number, including area c | | | |
| | Ke | | ered pursuant to Section 1 | | | |
| | Title of ea | U | 1 | ` ' | each exchange on which | |
| | Class | | Trading Symbol | - 1,00 | registered | |
| | Common Stock (Par | r Value \$0.01) | DFIN | | NYSE | |
| | | Securities registere | d pursuant to Section 12(g | of the Act | None | |
| | | | ell-known seasoned issuer, as de | * | | |
| Act. | | | , , | | | |
| Act. | Indicate by check mark if Yes □ No ☑ | the registrant is not re | quired to file reports pursuant to | o Section 13 or | Section 15(d) of the | |
| | Indicate by check mark wl | hether the registrant (1 |) has filed all reports required t | to be filed by S | ection 13 or 15(d) of the Securities | es |
| | | | (or for such shorter period that past 90 days. Yes ☑ No □ | | was required to file such reports), | and |
| | ant to Rule 405 of Regulation | on S-T (§232.405 of tl | his chapter) during the precedin | ry Interactive D | Pata File required to be submitted or for such shorter period that the | |
| regist | rant was required to submit | | | | | |
| repor | Indicate by check mark whating company or an emerginary" and "emerging growth | g growth company. S | a large accelerated filer, an acceet the definitions of "large acce2b-2 of the Exchange Act: | celerated filer, a clerated filer," | a non-accelerated filer, smaller "accelerated filer," "smaller repor | ting |
| | e accelerated filer | Accelerated filer ☑ | Non-accelerate | ed filer □ | Smaller reporting company | <i>r</i> 🔲 |
| Emer | ging growth company □ | | | | | |
| comp | | | eck mark if the registrant has eleg standards provided pursuant | | e the extended transition period for) of the Exchange Act. \square | r |
| • | Indicate by check mark wl | nether the registrant is | a shell company (as defined in | Rule 12b-2 of | the Act). Yes □ No ☑ | |
| 2019. | | | | | e shares on the NYSE) on June 28 nonaffiliates was \$413,269,478. | 3, |
| | | - | common stock were outstanding | - | +, , . , . , . , . , . , . , . | |
| | • | | ments Incorporated By Refer | | | |
| incor | Portions of the registrant's porated by reference into Pa | | | ckholders sched | duled to be held on May 18, 2020 | are |

DONNELLEY FINANCIAL SOLUTIONS, INC. ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2019

TABLE OF CONTENTS

| | Item No. | Name of Item | Pag |
|-----------|-------------|---|-------|
| Part I | | | |
| | Item 1. | Business | |
| | Item 1A. | Risk Factors | 1 |
| | Item 1B. | Unresolved Staff Comments | 1 |
| | Item 2. | Properties |] |
| | Item 3. | Legal Proceedings | |
| | Item 4. | Mine Safety Disclosures | |
| Part II | | | |
| | Item 5. | Market for Donnelley Financial Solutions, Inc. Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities | 2 |
| | Item 6. | Selected Financial Data | |
| | Item 7. | Management's Discussion and Analysis of Financial Condition and Results of Operations | |
| | Item 7A. | Quantitative and Qualitative Disclosures about Market Risk | |
| | Item 8. | Financial Statements and Supplementary Data. | |
| | Item 9. | Changes in and Disagreements with Accountants on Accounting and Financial Disclosure | |
| | Item 9A. | Controls and Procedures | |
| | Item 9B. | Other Information | |
| Part III | | | |
| T dit iii | Item 10. | Directors and Executive Officers of Donnelley Financial Solutions, Inc. and Corporate Governance | ۷ |
| | | Executive Officers of Donnelley Financial Solutions, Inc. | |
| | Item 11. | Executive Compensation | ۷ |
| | Item 12. | Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters | |
| | Item 13. | Certain Relationships and Related Transactions, and Director Independence | |
| | Item 14. | Principal Accounting Fees and Services. | |
| D (11) | | Timolpui Accounting Food und Sel vices | |
| Part IV | | E 1'1', E' '10, , , , 01 11 | |
| | Item 15. | Exhibits, Financial Statement Schedules | |
| | Item 16. | Form 10-K Summary | 4 |
| | Index to Co | onsolidated Financial Statements | . F |
| | Consolidate | ed Financial Statements and Notes | . F |
| | Report of I | ndependent Registered Public Accounting Firm | . F-4 |
| | Exhibits | | . Е |
| | | | |

Signatures

PART I

ITEM 1. BUSINESS

Company Overview

Donnelley Financial Solutions, Inc. and subsidiaries ("DFIN," or the "Company") is a leading global risk and compliance solutions company. The Company provides regulatory filing and deal solutions via its software-as-a-service ("SaaS"), technology-enabled services and print and distribution solutions to public and private companies, mutual funds and other regulated investment firms, to serve their regulatory and compliance needs. For corporate clients within its capital markets offerings, the Company offers technology-enabled filing solutions that allow U.S. public companies to comply with applicable U.S. Securities and Exchange Commission ("SEC") regulations including filing agent services, digital document creation and online content management tools that support their corporate financial transactions and regulatory reporting; solutions to facilitate clients' communications with their shareholders; and virtual data rooms and other deal management solutions. For the investment markets clients, including alternative investment and insurance investment companies, the Company provides technology-enabled filing solutions including cloud-based tools for creating and filing regulatory documents as well as solutions for investors designed to improve the speed of access to and accuracy of investment information. Throughout a company's life cycle, the Company serves its clients' regulatory and compliance needs. The Company's deep industry and regulatory expertise and a commitment to exceptional service guides its clients to navigate a complex and ever-changing regulatory environment.

Global Capital Markets ("GCM")

The Company provides a comprehensive set of solutions to corporate clients, domestically and internationally, to comply with disclosure obligations, create, manage and deliver accurate and timely financial communications, manage public and private transaction processes and provide clients with business intelligence from financial disclosures with data and analytics services. These solutions include the Company's traditional full-service SEC's Electronic Data Gathering, Analysis, and Retrieval ("EDGAR") filing preparation and filing agent services, technology-enabled services and print and distribution solutions, as well as the Company's SaaS solutions, ActiveDisclosure, Venue Virtual Data Room ("Venue"), EDGAR Online and eBrevia.

The Company's GCM clients consist mainly of companies that are subject to the filing and reporting requirements of the Securities Act of 1933, as amended (the "Securities Act") and the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The Company also supports public and private companies throughout merger and acquisition transaction processes and in public and private capital markets transactions with deal management solutions focused on aiding transactional efficiency from inception to completion. In 2019, approximately 49% of GCM net sales were transactional in nature, approximately 36% of GCM net sales were compliance in nature, approximately 14% of GCM net sales were related to Venue services and the remainder of GCM net sales were related to data and analytics services.

Transaction Solutions

The Company helps GCM clients throughout the course of public and private business transactions. For mergers and acquisition ("M&A") transactions the Company supports deal participants in creating transaction-related registration statements, proxies and prospectuses, files client documents as their filing agent through the EDGAR filing system and manages print for distribution to its clients' shareholders. The Company also provides complete initial public offering ("IPO") solutions that support the various stages of the IPO process. Solutions include preparing and filing registration statements and prospectuses, both through the Company's filing agent solution and its ActiveDisclosure SaaS solution, the Venue Virtual Data Room and secure file sharing SaaS solution and the eBrevia contract analytics SaaS solution.

The Company's cloud-based Venue® Virtual Data Room is a highly secure data room platform that allows GCM clients to share confidential information in real-time throughout the transaction lifecycle. Clients can maintain control over sensitive data when conducting due diligence for M&A, raising capital for an IPO or developing a document repository. Specifically, companies have used Venue to securely organize, manage, distribute and track corporate governance, financing, legal and other documents in an online workspace accessible to internal and outside advisors.

The Company acquired eBrevia, Inc. ("eBrevia"), a provider of artificial intelligence-based data extraction and contract analytics software solutions, on December 18, 2018. The eBrevia technology provides enterprise contract review and analysis solutions, leveraging machine learning to produce fast and accurate results. eBrevia's software, which extracts and summarizes key provisions and other information, is leveraged in due diligence, contract management, lease abstraction, and document drafting. The acquisition enhances the Company's Venue offerings to provide clients with secure data aggregation, due diligence, compliance and risk management solutions.

The Company also offers clients the use of private conferencing facilities in major cities in the U.S. and international jurisdictions. This service helps clients maintain confidentiality in deal negotiations and provides clients a place to host inperson working groups to meet, strategize and prepare documents for the transactional deal stream. The Company's sites are outfitted to provide around-the-clock services to support the transaction process.

Through an investment in and commercial agreement with Mediant Communications, Inc. ("Mediant"), the Company can simplify the annual meeting and proxy process for its capital markets customers via project management services and state of the art voting and tabulation technology. Additionally, the Company can help develop client-branded websites and enhanced online versions of the proxy statement and annual meeting documents to improve navigation, highlight key messaging and expand their reach to a broader investor base. This partnership allows the Company to manage and centralize communications for all investors, fulfill and distribute proxy materials and host virtual shareholder meetings, if desired.

Compliance Solutions

The Company provides compliance solutions to GCM clients in preparing the Exchange Act filings that are compatible with the SEC's EDGAR system. GCM clients leverage the Company's deep industry expertise and experience to successfully navigate the SEC's specified file formats when submitting compliance documents through the EDGAR system.

The Company's cloud-based ActiveDisclosure platform provides GCM clients with end-to-end solutions to collaborate, tag, validate and file with the SEC efficiently.

The Company supports GCM clients in meeting SEC-mandated regulatory filing requirements, including tagged filing in the eXtensible Business Reporting Language ("XBRL") format. The Company provides clients with a suite of tagging, review and validation tools to assist them with the XBRL requirements. The Company has accounting and finance professionals that assist its GCM clients with the processes of tag selection, tag review, file creation, validation and distribution.

The Company helps GCM clients elevate their proxy filings from compliance documents to investor-focused strategic communications tools with Proxy Design services. The Company's end-to-end proxy solutions include advisory services, proxy strategy and design, disclosure management, EDGAR filing and expertise, online hosting solutions, print production, distribution and annual meeting services.

The Company also provides additional compliance solutions through strategic partnerships, including a full suite of audit management and compliance solutions for Sarbanes-Oxley Act ("SOX"), operational audits, IT compliance, enterprise risk management and workflow management.

EDGAR® Online - Data and Analytics

The Company's EDGAR® Online solution delivers intelligent solutions in financial disclosures, creating and distributing company data and public filings for equities, mutual funds and other publicly traded assets. In addition to providing access to data sets, the Company provides subscription-based proprietary desktop and web tools for data analysis. EDGARPro enables investors, analysts, lawyers, auditors and corporate executives to access detailed company information, as-reported and standardized financial data, SEC filings, stock quotes and news.

Global Investment Markets ("GIM")

The Company provides a comprehensive set of solutions to clients operating in global investment markets domestically and internationally, including United States-based mutual funds, hedge and alternative investment funds, insurance companies and overseas investment structures for collective investments (similar to mutual funds in the United States). The Company also provides products to third party service providers and custodians who support investment managers, and sells products and distribution services to broker networks and financial advisors that distribute and sell investment products.

In 2019, approximately 96% of GIM net sales, excluding postage and freight, were compliance in nature, while the remaining 4% of GIM net sales were transactional in nature. In addition, approximately 89% of the Company's 2019 GIM net sales, excluding postage and freight, were derived predominantly from clients in the mutual fund and insurance industries, while the remaining 11% of net sales were derived primarily from clients in the healthcare industry. The Company's services and sales teams currently support clients in the United States, Canada, Ireland, the United Kingdom, France, Luxembourg, Poland, India and Australia.

The Company provides U.S. based mutual funds and investment insurance companies with solutions to prepare and file registration forms and subsequent ongoing disclosures, as well as XBRL-formatted filings pursuant to the Investment Company Act of 1940 (the "Investment Act"), through the EDGAR system.

The Company's proprietary FundSuiteArc software platform provides GIM clients with a comprehensive suite of cloud-based services and products that store and manage information in a self-service, central repository for compliance and regulatory documents to be easily accessed, assembled, edited, translated, rendered and submitted to regulators. Some of the products within FundSuiteArc are cloud-based and include automation and single-source data validation that streamlines processes and drives efficiency for clients. FundSuiteArc includes ArcFiling, ArcReporting, ArcPro, ArcExchange and ArcMarketing. The ArcFiling solution supports the newly required filing of Form N-CEN, as well as the filing of Form N-PORT, for which the initial filing dates began in April 2019. The Company's ArcFiling software solution supports both filings. The Company expects an increase in SaaS revenue due to the increase in the frequency of filings for registered investment companies.

Through an investment in and commercial agreement with Mediant, the Company provides a suite of software to brokers and financial advisors that enable them to monitor and view shareholder communications. The Company offers various technology and electronic delivery services and products to make the distribution of documents and content more efficient. The Company also supports the distribution, tabulation and solicitation of shareholders for corporate elections and mutual fund proxy events.

The Company provides turn-key proxy services for mutual funds and investment insurance companies including discovery, planning and implementation, print and mail management, solicitation, tabulation services, shareholder meeting review and expert support for mutual funds, variable annuities, REITs and other alternative investments.

The Company provides GIM clients with investor communication solutions including printing, digital distribution, e-Delivery and fulfillment systems.

The Company offers to healthcare providers a comprehensive set of solutions to support the creation, ordering and distribution of pre-enrollment and post-enrollment information in the form of customized and/or personalized kits, booklets and packets.

Segments

The Company operates in two business segments:

- United States. The U.S. segment is comprised of two reporting units: capital markets and investment markets. The Company sold its Language Solutions business, a former reporting unit, on July 22, 2018. The Company services capital market and investment market clients in the U.S. by delivering technology-enabled services and products to help create, manage and deliver financial communications to investors and regulators. The Company provides capital market and investment market clients with communication tools, services and software to allow them to comply with their ongoing regulatory filings. In addition, the U.S. segment provides clients with communications services to create, manage and deliver registration statements, prospectuses, proxies and other communications to regulators and investors. The U.S. segment also includes commercial printing capabilities.
- International. The International segment includes operations in Asia, Europe, Canada and Latin America. The international business is primarily focused on working with international capital markets clients on capital markets offerings and regulatory compliance-related activities within the United States. In addition, the International segment provides services to international investment market clients to allow them to comply with applicable SEC regulations. The Company provided language solutions to international clients, prior to the sale of the Company's Language Solutions business on July 22, 2018. Refer to Note 4, Acquisitions and Dispositions, to the Consolidated Financial Statements for additional information.

The Company reports certain unallocated selling, general and administrative ("SG&A") activities and associated expenses within *Corporate*, including, in part, executive, legal, finance, marketing and certain facility costs. In addition, certain costs and earnings of employee benefit plans, such as pension income and share-based compensation, are included in Corporate and are not allocated to the reportable segments.

Services and Products

The Company's services offerings consist of document composition, compliance-related EDGAR filing services, transaction solutions, and the Company's SaaS solutions, including Venue, FundSuiteArc, ActiveDisclosure, EDGAR Online and others. The Company's product offerings primarily consist of conventional and digital printed products and related shipping costs. Prior to the sale of the Company's Language Solutions business on July 22, 2018, the Company provided language solutions services to international clients.

Company History

Spin-off Transaction

On October 1, 2016, DFIN became an independent publicly traded company through the distribution by RRD of approximately 26.2 million shares, or 80.75%, of DFIN common stock to RRD shareholders (the "Separation"). Holders of RRD common stock received one share of DFIN common stock for every eight shares of RRD common stock held on September 23, 2016. As part of the Separation, RRD retained approximately 6.2 million shares of DFIN common stock, or a 19.25% interest in DFIN, of which 6.1 million shares and 0.1 million shares were subsequently sold in June 2017 and August 2017, respectively. DFIN's common stock began regular-way trading under the ticker symbol "DFIN" on the New York Stock Exchange on October 3, 2016. On October 1, 2016, RRD also completed the previously announced separation of LSC Communications, Inc. ("LSC"), its publishing and retail-centric print services and office products business. On March 28, 2017, RRD completed the sale of 6.2 million shares of LSC common stock (RRD's remaining ownership stake in LSC) in an underwritten public offering.

Language Solutions Disposition

On July 22, 2018, the Company sold its Language Solutions business. Prior to its sale, the Language Solutions business supported domestic and international businesses in 73 different countries and in a variety of industries, including the financial, corporate, life sciences and legal industries, among others, by helping them adapt their business content into different languages for specific countries, markets and regions through a complete suite of language services and products.

eBrevia Acquisition

On December 18, 2018, the Company acquired eBrevia, a provider of artificial intelligence-based data extraction and contract analytics software solutions. Prior to the acquisition, the Company held a 12.8% investment in eBrevia. The purchase price for the remaining equity of eBrevia, which includes the Company's estimate of contingent consideration, was \$23.3 million, net of cash acquired of \$0.2 million. The eBrevia technology provides enterprise contract review and analysis solutions, leveraging machine learning to produce fast and accurate results. eBrevia's software, which extracts and summarizes key legal provisions and other information, is used in due diligence, contract management, lease abstraction and document drafting. eBrevia's operations are included within the Capital Markets reporting unit in the U.S. segment. The acquisition enhances the Company's Venue offerings to provide clients with secure data aggregation, due diligence, compliance and risk management solutions.

Competition

Technological and regulatory changes, including the electronic distribution of documents, continue to impact the market for the Company's services and products. In addition to the Company's ongoing innovation in its SaaS solutions, one of the Company's competitive strengths is that it offers a wide array of communications products, compliance services, a global platform, exceptional sales and service and regulatory domain expertise, which provide differentiated solutions for its clients.

The global risk and compliance industry, in general, is highly competitive and barriers to entry have decreased as a result of technology innovation and the simplification of EDGAR filings. Despite some consolidation in recent years, the industry remains highly fragmented in the United States and even more so internationally with many in-country alternative providers. The Company expects competition to increase from existing competitors as well as new and emerging market entrants. In addition, as the Company expands its product and service offerings, it may face competition from new and existing competitors. The Company competes primarily on product quality and functionality, service levels, subject matter regulatory expertise, security, price and reputation.

The impact of digital technologies has impacted many of the products and markets in which the Company competes, most acutely in the Company's mutual fund, variable annuity and public company compliance business offerings. While the Company offers a high-touch, service oriented experience, technology changes have provided alternatives to the Company's clients that allow them to manage more of the financial disclosure process themselves. The Company has invested in its own SaaS solutions, ActiveDisclosure, FundSuiteArc and Venue to serve clients and increase retention, and has invested to expand capabilities and address new market sectors. The future impact of technology as well as the streamlining and modernizing of disclosure requirements on the business is difficult to predict and could result in additional expenditures to restructure impacted operations or develop new technologies. In addition, the Company has made targeted acquisitions and investments in its existing business to offer clients innovative services and solutions, including acquisitions of eBrevia and EDGAR Online and investments in AuditBoard, Mediant, and Gain Compliance that support the Company's position as a technology service leader in this evolving industry.

The Company's competitors for SEC filing services for public company compliance clients include full service financial communications providers, technology point solution providers focused on financial communications and general technology providers. The Company's competitors for Venue Virtual Data Room include providers of virtual data roomspecific solutions and enterprise software providers that offer online products that serve as document repositories, virtual data rooms as well as file sharing and collaboration solutions. The Company's competitors for SEC filing services for investment markets clients include full service traditional providers, small niche technology providers and local and regional print providers that bid against the Company for printing, mailing and fulfillment services.

Market Volatility/Cyclicality

The Company is subject to market volatility in the United States and world economy, as the success of the transactional offering is largely dependent on the global market for IPOs, secondary offerings, mergers and acquisitions, public and private debt offerings, leveraged buyouts, spinouts and other transactions. A variety of factors impact the global markets, including the regulatory and political environment. In the past, U.S. IPO, M&A and public debt offerings were disrupted by the U.S. federal government shutdown that occurred, most recently, from December 2018 to January 2019. Future government shutdowns could result in additional volatility. The International segment is particularly susceptible to capital market volatility as most of the International business is capital markets transaction focused. The Company mitigates some of that risk by offering services in higher demand during a down market, like document management tools for the bankruptcy/restructuring process, and also by moving upstream from the filing process with products like Venue, the Company's data room solution. The Company also attempts to balance this volatility through supporting the quarterly/annual public company reporting process through its EDGAR filing services and ActiveDisclosure product, its investment markets regulatory and shareholder communications offering and continues to expand into adjacent growth businesses like data and analytics, which has recurring revenues and is not as susceptible to market volatility and cycles. The quarterly/annual public company reporting process work also subjects the Company to filing seasonality shortly after the end of each fiscal quarter, with peak periods during the course of the year. The seasonality and associated operational implications include the need to increase staff during peak periods through a combined strategy of hiring additional full-time and temporary personnel, increasing the premium time of existing staff, and outsourcing production for a number of services. Additionally, clients and their financial advisors have begun to increasingly rely on web-based services which allow clients to autonomously file and distribute compliance documents with regulatory agencies, such as the SEC. While the Company believes that its ActiveDisclosure and FundSuiteArc solutions are competitive in this space, competitors are continuing to develop technologies that aim to improve clients' ability to autonomously produce and file documents to meet their regulatory obligations. The Company remains focused on driving recurring revenue to mitigate market volatility.

Regulatory Impact

The SEC is adopting new as well as amending existing rules and forms to modernize the reporting and disclosure of information by registered investment companies. These changes are driving significant regulatory changes which impact the Company's customers within its Investment Markets business. On October 13, 2016, the SEC adopted a new N-PORT filing requirement, which requires certain registered investment companies to report information about their portfolio in XML, a structured data format, on a monthly basis, replacing what was previously a quarterly filing requirement. This rule also includes an annual N-CEN filing in XML, replacing a semi-annual filing requirement. Compliance dates depend on asset size and began as soon as June 1, 2018 for larger funds. In 2019, the SEC amended the rule and Funds now file three months of N-PORT on a quarterly basis. The first N-PORT filing deadlines began in April 2019 for larger funds with over \$1 billion in assets. Beginning in April 2020, smaller funds will begin filing N-PORT on a quarterly basis. The Company's ArcFiling software solution can support both filings.

On June 5, 2018, the SEC adopted Rule 30e-3 which provides certain registered investment companies with an option to electronically deliver shareholder reports and other materials rather than providing such reports in paper. Investors who prefer to receive reports in paper will continue to receive them in that format. While Rule 30e-3 was effective January 1, 2019, default electronic distribution pursuant to the rule will begin on January 1, 2021 due to a 24-month transition period, during which registered investment companies must notify investors of the upcoming change in transmission format of shareholder reports. The Company expects a decline in the volume of printed annual and semi-annual shareholder reports in 2021 and beyond as a result of Rule 30e-3.

Raw Materials

The primary raw materials used in the Company's printed products are paper and ink. The paper and ink is sourced from a small set of select suppliers to ensure consistent quality that meets the Company's performance expectations and provides for continuity of supply. The Company believes that the risk of incurring material losses as a result of a shortage in raw materials is unlikely and that the losses, if any, would not have a materially negative impact on the Company's business.

Distribution

The Company's products are distributed to end-users through the U.S or foreign postal services, through retail channels, electronically or by direct shipment to customer facilities.

Customers

For each of the years ended December 31, 2019, 2018 and 2017, no customer accounted for 10% or more of the Company's net sales.

Technology

The Company invests resources in developing software solutions to complement its services. The Company invests in its core composition systems and client facing solutions and has also adopted market-leading third party systems which have improved the efficiency of its sales and operations processes. The Company has continued to invest in enhancements of its technology-based offerings including EDGAR filing and XBRL services, Venue Virtual Data Room, ActiveDisclosure, FundSuiteArc software platform, and its data and analytics solutions. The Company continues to invest in leading and innovative technology such as robotic process automation, machine learning and hybrid cloud architecture.

Cybersecurity & Data Protection

A core aspect of the Company's business relies on technology and software; as a result, the security of those technologies and software, as well as the protection of the confidential information entrusted to the Company by its customers, are key parts of the Company's business and strategy. The DFIN Cybersecurity Program is based upon industry leading frameworks, which include International Standardization Organization #27001 (ISO 27001), Control Objectives for Information Technology (COBIT), and the National Institute of Standards and Technology Framework for Improving Critical Infrastructure Cybersecurity (commonly known as NIST). The Company's technologies and software must also comply with domestic and international regulatory and legal requirements. Ensuring that these technologies and software comply with those regulations is a key focus of the Company's efforts.

The Company leverages cybersecurity technologies designed to ensure that client, employee and business confidential data is secure. The Company's cybersecurity portfolio is inclusive of, but not limited to, data encryption, data masking, leading secure software development methodologies, aggressive application and network penetration testing, incident response, digital forensics, least-privileged access controls, anti-malware, virtual private networks and cyber threat intelligence. Additionally, the Company manages a 24x7 Security Operations capability that monitors and responds to cyber threats in real time.

To demonstrate transparency, the Company's commitment to effective cybersecurity and data protection efforts and in pursuit of continuous improvement, the Company undergoes a series of third-party security reviews, including third-party penetration tests.

Environmental Compliance

It is the Company's policy to conduct its global operations in accordance with all applicable laws, regulations and other requirements. It is not possible to quantify with certainty the potential impact of actions regarding environmental matters, particularly remediation and other compliance efforts that the Company may undertake in the future. However, in the opinion of management, compliance with the present environmental protection laws, before taking into account estimated recoveries from third parties, will not have a material adverse effect on the Company's consolidated annual results of operations, financial position or cash flows.

Employees

As of December 31, 2019, the Company had approximately 2,900 employees.

Available Information

The Company maintains a website at www.dfinsolutions.com where the Company's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports, as well as other SEC filings, are available without charge, as soon as reasonably practicable following the time they are filed with, or furnished to, the SEC. The Principles of Corporate Governance of the Company's Board of Directors, the charters of the Audit, Compensation, Corporate Responsibility & Governance Committees of the Board of Directors and the Company's Principles of Ethical Business Conduct are also available on the Investor Relations portion of the Company's website, and will be provided, free of charge, to any shareholder who requests a copy. References to the Company's website address do not constitute incorporation by reference of the information contained on the website, and the information contained on the website is not part of or incorporated by reference in this document.

Special Note Regarding Forward-Looking Statements

The Company has made forward-looking statements in this Annual Report on Form 10-K (the "Annual Report") within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 that are subject to risks and uncertainties. These statements are based on the beliefs and assumptions of the Company. Generally, forward-looking statements include information concerning possible or assumed future actions, events, or results of operations of the Company.

These statements may include words such as "anticipates," "estimates," "expects," "projects," "forecasts," "intends," "plans," "continues," "believes," "may," "will," "goals" and variations of such words and similar expressions are intended to identify our forward-looking statements.

Forward-looking statements are not guarantees of performance. These forward-looking statements are subject to a number of important factors, including those factors discussed in detail in "*Item 1A: Risk Factors*" and elsewhere in this Annual Report, that could cause the Company's actual results to differ materially from those indicated in any such forward-looking statements. These factors include, but are not limited to:

- the volatility of the global economy and financial markets, and its impact on transactional volume;
- failure to offer high quality customer support and services;
- the retention of existing, and continued attraction of additional clients;
- the growth of new technologies with which the Company may be able to adequately compete;
- the Company's inability to maintain client referrals;
- the competitive market for the Company's products and industry fragmentation affecting prices;
- the ability to gain client acceptance of the Company's new products and technologies;
- delay in market acceptance of the Company's services and products due to undetected errors or failures found in its services and products;
- failure to maintain the confidentiality, integrity and availability of systems, software and solutions;
- failure to properly use and protect client and employee information and data;

- the effect of a material breach of security or other performance issues of any of the Company's or its vendors' systems;
- factors that affect client demand, including changes in economic conditions, national or international regulations and clients' budgetary constraints;
- the Company's ability to access debt and the capital markets due to adverse credit market conditions;
- the effect of increasing costs of providing healthcare and other benefits to employees;
- changes in the availability or costs of key materials (such as ink and paper) or in prices received for the sale of by-products;
- failure to protect the Company's proprietary technology;
- failure to successfully integrate acquired businesses;
- availability to maintain the Company's brands and reputation;
- the retention of existing, and continued attraction of, key employees, including management;
- the effects of operating in international markets, including fluctuations in currency exchange rates; and
- the effect of economic and political conditions on a regional, national or international basis.

Because forward-looking statements are subject to assumptions and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Undue reliance should not be placed on such statements, which speak only as of the date of this document or the date of any document that may be incorporated by reference into this document.

Consequently, readers of the Annual Report should consider these forward-looking statements only as the Company's current plans, estimates and beliefs. The Company does not undertake and specifically declines any obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect future events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events. The Company undertakes no obligation to update or revise any forward-looking statements in this Annual Report to reflect any new events or any change in conditions or circumstances.

ITEM 1A. RISK FACTORS

The Company's consolidated results of operations, financial position and cash flows can be adversely affected by various risks. These risks include the principal factors listed below and the other matters set forth in the Annual Report. You should carefully consider all of these risks.

A significant part of the Company's business is derived from the use of DFIN's services and products in connection with financial and strategic business transactions. Trends that affect the volume of these transactions may negatively impact the demand for DFIN's services and products.

A significant portion of the Company's net sales depends on the purchase of DFIN's services and products by parties involved in GCM compliance and transactions. As a result, the Company's business is largely dependent on the global market for IPOs, secondary offerings, mergers and acquisitions, public and private debt offerings, leveraged buyouts, spinouts, bankruptcy and claims processing and other transactions. These transactions are often tied to market conditions and the resulting volume of these types of transactions affects demand for the Company's services and products. Downturns in the financial markets, global economy or in the economies of the geographies in which the Company does business and reduced equity valuations create risks that could negatively impact the Company's business. For example, in the past, economic volatility has led to a decline in the financial condition of a number of the Company's clients and led to the postponement of their capital markets transactions. To the extent that there is continued volatility, the Company may face increasing volume pressure. Furthermore, the Company's offerings for GIM clients can be affected by fluctuations in the inflow and outflow of money into investment management funds which determines the number of new funds that are opened and closed. As a result, the Company is unable to predict the impact of any potential worsening of macroeconomic conditions which could have impacts to the Company's results of operations. The level of activity in the financial communications services industry, including the financial transactions and related compliance needs DFIN's services and products are used to support, is sensitive to many factors beyond the Company's control, including interest rates, regulatory policies, general economic conditions, the Company's clients' competitive environments, business trends, terrorism and political change, such as the impact of the United Kingdom's (the "UK") recent withdrawal from the European Union (the "EU"). While EU rules will continue to apply in the UK until the end of 2020 (which period may be extended by one or two years), there can be no assurance that an agreement between the UK and the EU with regard to future trade and co-operation will be reached prior to the end of this transition period. In addition, a weak economy could hinder the Company's ability to collect amounts owed by clients. Failure of the Company's clients to pay the amounts owed or to pay such amounts in a timely manner, may increase the Company's exposure to credit risks and result in bad debt write-offs. Unfavorable conditions or changes in any of these factors could negatively impact the Company's results of operations, financial position and cash flow.

The quality of the Company's customer support and services offerings is important to the Company's clients, and if the Company fails to offer high quality customer support and services, clients may not use DFIN's solutions resulting in a potential decline in net sales.

A high level of customer support is critical for the successful marketing and sale of DFIN's solutions. If the Company is unable to provide a level of customer support and service to meet or exceed clients' expectations, the Company could experience a loss of clients and market share, a failure to attract new clients, including in new geographic regions and increased service and support costs and a diversion of resources. Any of these results could negatively impact the Company's results of operations, financial position and cash flow.

A substantial part of the Company's business depends on clients continuing their use of DFIN's services and products. Any decline in the Company's client retention would harm the Company's future operating results.

The Company does not have long term contracts with most of GCM and GIM clients and, therefore, relies on their continued use of DFIN's services and products, particularly for compliance-related services. As a result, client retention, particularly during periods of declining transactional volume, is an important part of the Company's strategic business plan. There can be no assurance that clients will continue to use DFIN's services and products to meet their ongoing needs, particularly in the face of competitors' services and products offerings. Client retention rates may decline due to a variety of factors, including:

- the Company's inability to demonstrate to the value of its solutions:
- the price, performance and functionality of DFIN's solutions;
- the availability, price, performance and functionality of competing services and products;
- clients' ceasing to use or anticipating a declining need for the Company's services in their operations;
- consolidation in the Company's client base;
- the effects of economic downturns and global economic conditions;

- technology and application failures and outages, interruption of service, security breaches or fraud which could adversely affect the Company's reputation and the Company's relations with its clients; or
- reductions in clients' spending levels.

If the Company's retention rates are lower than anticipated or decline for any reason, the Company's net sales may decrease and the Company's profitability may be harmed, which could negatively impact the Company's results of operations, financial position and cash flow.

The Company's business may be adversely affected by new technologies enabling clients to produce and file documents on their own.

The Company's business may be adversely affected as clients seek out opportunities to produce and file regulatory documentation on their own and begin to implement technologies that assist them in this process. For example, clients and their financial advisors have increasingly relied on web-based services which allow clients to autonomously file and distribute reports required pursuant to the Exchange Act, prospectuses and other materials as a replacement for using the Company's EDGAR filing services. If technologies are further developed to provide clients with the ability to autonomously produce and file documents to meet their regulatory obligations, and the Company does not develop products or provide services to compete with such new technologies, the Company's business may be adversely affected by those clients who choose alternative solutions, including self-serving or filing themselves.

The Company's performance and growth depend on its ability to generate client referrals and to develop referenceable client relationships that will enhance the Company's sales and marketing efforts.

The Company depends on users of its solutions to generate client referrals for the Company's services. The Company depends, in part, on the financial institutions, law firms and other third parties who use DFIN's services and products to recommend solutions to their client base, which provides the Company the opportunity to reach a larger client base than it can reach through the direct sales and internal marketing efforts. For instance, a portion of the Company's net sales from GCM clients is generated through referrals by investment banks, financial advisors and law firms that have utilized the Company's services in connection with prior transactions. These referrals are an important source of new clients for the Company's services.

A decline in the number of referrals could require the Company to devote substantially more resources to the sales and marketing of its services, which would increase costs, potentially lead to a decline in net sales, slow the Company's growth and negatively impact its results of operations, financial position and cash flow.

The Company's indebtedness may adversely affect the Company's business and results of operations, financial position and cash flow.

As of December 31, 2019, the Company had \$300 million of 8.25% senior unsecured notes due October 15, 2024 ("Notes") outstanding. As of December 31, 2019, the Company did not have any amounts outstanding under its Credit Facilities, as defined below. The Company's ability to make payments on and to refinance indebtedness, as well as any future debt that it may incur, will depend on the Company's ability to generate cash in the future from operations, financings or asset sales. The Company's ability to generate cash is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond the Company's control. The Company may not generate sufficient funds to service its debt and meet its business needs, such as funding working capital or the expansion of the Company's operations. If the Company is not able to repay or refinance debt as it becomes due, it may be forced to take disadvantageous actions, including facility closure, staff reductions, reducing financing in the future for working capital, capital expenditures and general corporate purposes, selling assets or dedicating an unsustainable level of cash flows from operations to the payment of principal and interest on its indebtedness, and restricting future capital return to stockholders. The lenders who hold the Company's debt could also accelerate amounts due in the event of a default, which could potentially trigger a default or acceleration of the maturity of the Company's debt.

In addition, the Company's competitors who may be less leveraged, could put the Company at a competitive disadvantage. These competitors could have greater financial flexibility to pursue strategic acquisitions, secure additional financing and may better withstand downturns in the Company's industry or the economy in general.

The agreements and instruments that govern the Company's debt impose restrictions that may limit the Company's operating and financial flexibility.

On September 30, 2016, in connection with the Separation, the Company entered into a Credit Agreement (the "Credit Agreement") by and among the Company, the lenders party thereto from time to time and JPMorgan Chase Bank, N.A., as administrative agent. The Credit Agreement provides for a \$350.0 million senior secured term loan B facility (the "Term Loan Credit Facility") and a \$300.0 million senior secured revolving credit facility (the "Revolving Facility," and, together with the Term Loan Credit Facility, the "Credit Facilities"). The Credit Agreement that governs the Company's Credit Facilities and the indenture that governs the Notes contain a number of significant restrictions and covenants that limit the Company's ability to:

- incur additional debt;
- pay dividends, make other distributions or repurchase or redeem capital stock;
- prepay, redeem or repurchase certain debt;
- make loans and investments;
- sell, transfer or otherwise dispose of assets;
- incur or permit to exist certain liens; enter into certain types of transactions with affiliates;
- enter into agreements restricting the Company's subsidiaries' ability to pay dividends; and
- consolidate, merge or sell all or substantially all of the Company's assets.

These covenants can have the effect of limiting the Company's flexibility in planning for or reacting to changes in the Company's business and the markets in which it competes. In addition, the Credit Agreement that governs the Credit Facilities requires the Company to comply with certain financial maintenance covenants. Operating results below current levels or other adverse factors, including a significant increase in interest rates, could result in the Company being unable to comply with the financial covenants contained in the Term Loan Credit Facility and indenture. If the Company violates covenants under the Credit Facilities and indenture and is unable to obtain a waiver from the lenders, the Company's debt under the Credit Facilities and indenture would be in default and could be accelerated by the Company's lenders. Due to cross-default provisions in the agreements and instruments governing the Company's debt, a default under one agreement or instrument could result in a default under, and the acceleration of, other debt.

If the Company's debt is accelerated, the Company may not be able to repay its debt or borrow sufficient funds to refinance it. Even if the Company is able to obtain new financing, it may not be on commercially reasonable terms, on terms that are acceptable, or at all. If the Company's debt is in default for any reason, the Company's business and results of operations, financial position and cash flow could be materially and adversely affected. In addition, complying with these covenants may also cause the Company to take actions that are not favorable to holders of the Notes and may make it more difficult for the Company to successfully execute its business strategy and compete against companies that are not subject to such restrictions.

Despite the Company's current level of indebtedness, it may be able to incur significantly more debt.

Despite the Company's current level of indebtedness, the Company may be able to incur significant additional debt, including secured debt, in the future. Although the indenture governing the Notes and the Credit Agreement governing the Credit Facilities restrict the incurrence of additional debt, these restrictions are subject to a number of qualifications and exceptions. Also, these restrictions do not prevent the Company from incurring obligations that do not constitute indebtedness. In addition, as of December 31, 2019, the Company had \$231.6 million available for additional borrowing under the Revolving Facility. The more indebtedness the Company incurs, the further exposed it becomes to the risks associated with leverage described above.

Adverse credit market conditions may limit the Company's ability to obtain future financing.

The Company may, from time to time, depend on access to credit markets. Uncertainty and volatility in global financial markets may cause financial markets institutions to fail or may cause lenders to hoard capital and reduce lending. As a result, DFIN may not obtain financing on terms and conditions that are favorable, or at all.

The highly competitive market for DFIN's services and products and industry fragmentation may continue to create adverse price pressures.

The financial communications services industry is highly competitive with relatively low barriers to entry and the industry remains highly fragmented in North America and internationally. Management expects that competition will increase from existing competitors, as well as new and emerging entrants. Additionally, as the Company expands its product and service offerings, it may face competition from new and existing competitors. As a result, competition may lead to additional pricing pressure on DFIN's services and products, which could negatively impact its results of operations, financial position and cash flow.

The business plan management announced at the Company's 2018 investor day relies on the Company's ability to transform into a software-as-a-service company, and a failure to adapt to technological changes to address the changing demands of clients may adversely impact the Company's business, and if the Company fails to successfully develop, introduce or integrate new services or enhancements to its services and products platforms, systems or applications, DFIN's reputation, net sales and operating income may suffer.

In May 2018, management introduced the Company's new business plan that focuses on transitioning its business to a software and technology focused company. In order to do that, the Company must attract new clients for those businesses, and its ability to attract new clients and increase sales to existing clients will depend in large part on the Company's ability to enhance and improve existing services and products platforms, including application solutions, and to introduce new functionality either by acquisition or internal development. The Company's operating results would suffer if its innovations are not responsive to the needs of the Company's clients, are not appropriately timed with market opportunities or are not brought to market effectively. In addition, it is possible that management's assumptions about the features that they believe will drive purchasing decisions for the Company's potential clients or renewal decisions for the existing clients could be inaccurate. There can be no assurance that new products or services, or upgrades to DFIN's products or services, will be released as anticipated or that, when released, they will not contain defects. If product defects arise, the Company could experience negative publicity, damage to its reputation, decline in net sales, delay in market acceptance or claims by clients brought against the Company. Moreover, upgrades and enhancements to the Company's platforms may require substantial capital investment without assurance that the upgrades and enhancements will enable the Company to achieve or sustain a competitive advantage in the product and service offerings. If the Company is unable to license or acquire new technology solutions to enhance existing product and service offerings, the results of operations, financial position and cash flow may be negatively impacted.

Undetected errors or failures found in DFIN's services and products may result in loss of or delay in market acceptance of the services and products that could negatively impact its business.

DFIN's services and products may contain undetected errors or scalability limitations during their life cycle, but particularly when first introduced or as new versions are released to the market. The Company releases enhanced versions of products including platforms during various stages of development. Despite production testing by the Company and operational testing by current and potential clients, errors may not be found in new services and products until after commencement of commercial availability or use, resulting in a loss of or a delay in market acceptance, damage to the Company's reputation, client dissatisfaction and decline in net sales and operating income.

Modifications in the rules and regulations to which clients or potential clients are subject to may impact the demand for the Company's product and service offerings.

Clients are subject to rules and regulations requiring certain printed or electronic communications governing the form, content and delivery methods of such communications, such as SEC Rule 30e-3 which provides certain registered investment companies with an option to electronically deliver shareholder reports and other materials rather than providing such reports in paper. Modifications in these regulations may impact clients' business practices and could reduce demand for DFIN's services and products offerings. Modifications in such regulations could eliminate the need for certain types of communications altogether or impact the quantity or format of required communications.

The Company's failure to maintain the confidentiality, integrity and availability of its systems, software and solutions could seriously damage the Company's reputation and affect its ability to retain clients and attract new business.

Maintaining the confidentiality, integrity and availability of DFIN's systems, software and solutions is an issue of critical importance for the Company and its clients and users who rely on DFIN's systems to prepare regulatory filings and store and exchange large volumes of information, much of which is proprietary, confidential and may constitute material nonpublic information. Given DFIN's systems contain material nonpublic information about public reporting companies and potential mergers and acquisitions activities prior to its public release, the Company may be a target of hacking or cybercrime. Inadvertent disclosure of the information maintained on DFIN's systems (or on the systems of the vendors on which the Company relies) due to human error, breach of the systems through hacking, cybercrime or a leak of confidential information due to employee misconduct, could seriously damage the Company's reputation, could cause it to expend significant resources responding to document requests from government agencies and customers and could cause significant reputational harm for the Company and its clients. The Company's technologies, systems, networks and software have been and continue to be subject to cybersecurity threats and attacks, which range from uncoordinated individual attempts to sophisticated and targeted measures directed at the Company. The risk of a security breach or disruption, particularly through cyber attack or cyber intrusion, has increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased and the Company has in the past and may in the future be subject to security breaches. For example, during 2019 the Company experienced two cyber incidents, one of which was through a commercial partner. The incident involving the Company's commercial partner was a result of a compromise to the partner's email server and the DFIN incident was, the Company believes, the result of a compromised login credential, each of which allowed unauthorized viewing of client information on that system. In each incident, the Company believes the unauthorized access was limited to that system. The Company has contacted, and, in the future will contact, impacted customers as appropriate with respect to all cyber incidents.

The Company's customers and employees have been, and will continue to be, targeted by parties using fraudulent emails and other communications in attempts to misappropriate login credentials, including passwords, or to introduce viruses or other malware programs to its information systems, the information systems of its vendors or third-party service providers and/or its customers' computers. Though the Company endeavors to mitigate these threats through product improvements, use of encryption and authentication technology and customer and employee education, such cyber attacks against the Company or its vendors and third-party service providers remain a serious issue. Further, to access the Company's services and products, the Company's customers use personal electronic devices that are beyond DFIN's security control systems. Techniques used to obtain unauthorized access to, or to sabotage, systems change frequently and generally are not recognized until executed against a target. Consistent with all software solutions, DFIN's software may be vulnerable to these types of attacks. Breaches and other inappropriate access can be difficult to detect and any delay in identifying them could increase their harm. An attack of this type could disrupt the proper functioning of the Company's software solutions, cause errors in the output of clients' work, allow unauthorized access to sensitive, proprietary or confidential information and other undesirable or destructive outcomes.

As a result of these types of risks and attacks, the Company has implemented and continuously reviews and updates systems, processes and procedures to protect against unauthorized access to or use of data and to prevent data loss. For example, in 2019 the Company refreshed relevant security standards to reflect changes in current security threats, increased the number of cyber security resources monitoring DFIN systems for cyber threats, enhanced intrusion and detection capabilities and refreshed mandatory information security awareness training content, including awareness around phishing. However, the ever-evolving threats mean the Company and its third-party service providers and vendors must continually evaluate and adapt their respective systems and processes and overall security environment. There is no guarantee that these measures will be adequate to safeguard against all data security breaches, system compromises or misuses of data.

Furthermore, DFIN's systems allow the Company to share information that may be confidential in nature to its clients across the Company's offices worldwide. This design allows the Company to increase global reach for its clients and increase its responsiveness to client demands, but also increases the risk of a security breach or a leak of such information as it allows additional points of access to information by increasing the number of employees and facilities working on certain jobs. In addition, DFIN's systems leverage third party outsourcing arrangements, which expedites the Company's responsiveness but exposes information to additional access points. If an actual or perceived information leak or breach of security were to occur, the Company's reputation could suffer, clients could stop using DFIN's services and products offerings, the Company could have to respond to document requests from government agencies and customers and it could face lawsuits and potential liability, any of which could cause DFIN's financial performance to be negatively impacted. The Company has incurred, and expects to continue to incur, expenses to prevent, investigate and remediate security breaches and vulnerabilities, including deploying additional personnel and protection technologies, training employees and engaging third-party experts and consultants. Though the Company maintains professional liability insurance that includes coverage if a cybersecurity incident were to occur, there can be no assurance that insurance coverage will be available, responsive, or that the available coverage will be sufficient to cover losses and claims related to any cybersecurity incidents the Company may experience.

A number of core processes, such as software development, sales and marketing, client service and financial transactions, rely on DFIN's IT infrastructure and applications. Defects or malfunctions in the Company's IT infrastructure and applications could cause DFIN's services and products offerings not to perform as clients expect, which could negatively impact the Company's reputation and business. In addition, malicious software, sabotage and other cybersecurity breaches of the types described above could cause an outage in DFIN's infrastructure, which could lead to a substantial delay of service and ultimately downtimes, recovery costs and client claims, any of which could negatively impact the Company's results of operations, financial position and cash flow.

Some of DFIN's systems and services are developed by third parties or supported by third party hardware and software. The Company's business and reputation could suffer if these third party systems and services fail to perform properly or are no longer available to the Company.

Some of DFIN's systems and services are developed by third parties or rely on hardware purchased or leased and software licensed from third parties. These systems and services, or the hardware and software required to run the Company's existing systems and services, may not continue to be available on commercially reasonable terms or at all. Any loss of the right to use any of this hardware or software could result in delays in the provisioning of DFIN's services, which could negatively affect the Company's business until equivalent technology is either developed by the Company or, if available, is identified, obtained and integrated. In addition, it is possible that the Company's hardware vendors or the licensors of third party software could increase their prices, which could have an adverse impact on DFIN's business, operating results and financial condition. Further, changing hardware vendors or software licensors could detract from management's ability to focus on the ongoing operations of the Company's business or could cause delays in the operations of the business.

Additionally, third party software underlying DFIN's services can contain undetected errors or bugs, or be susceptible to cybersecurity breaches described above. The Company may be forced to delay commercial release of its services until any discovered problems are corrected and, in some cases, may need to implement enhancements or modifications to correct errors that the Company does not detect until after deployment of its services.

Increasing regulatory focus on privacy issues and expanding laws could impact DFIN's software products and expose the Company to increased liability.

Privacy and data security laws apply to DFIN's various businesses in all jurisdictions in which the Company operates. In particular, clients use DFIN's software services, including Venue, to share personal data and information on a confidential basis, and such sharing may be subject to privacy and data security laws. DFIN's global business operates in countries that have more stringent data protection laws than those in the United States. These data protection laws may be inconsistent across jurisdictions and are subject to evolving and differing interpretations. New laws, such as the GDPR which went into effect in May 2018 in Europe, and industry self-regulatory codes have been or are being enacted to protect personal data. Complying with these regulations has been, and will continue to be, costly, and there are or will be significant penalties for failure to comply with these regulations, including significant penalties for failing to comply with GDPR. Further, any perception of DFIN's practices, products or services as a violation of individual privacy rights may subject the Company to public criticism, class action lawsuits, reputational harm, or investigations or claims by regulators, industry groups or other third parties, all of which could disrupt DFIN's business and expose the Company to liability.

Transferring personal data and information across international borders is becoming increasingly complex. For example, Europe has stringent regulations regarding transfer of personal data and information. The mechanisms that DFIN and many other companies rely upon for data transfers from Europe to the United States (e.g., Privacy Shield and Model Clauses) are being contested in the European court systems. The Company is closely monitoring developments related to requirements for transferring personal data and information. These requirements may result in an increase in the obligations required to provide DFIN's services in the EU or in sanctions and fines for non-compliance. Several other countries, including Australia and Japan, have also established specific legal requirements for cross-border transfers of personal information. These developments in Europe and elsewhere could harm DFIN's business, financial condition and results of operations.

Fluctuations in the costs and availability of paper, ink, energy and other raw materials may adversely impact the Company.

Increases in the costs of these inputs may increase DFIN's costs and the Company may not be able to pass these costs on to clients through higher prices. Moreover, rising raw materials costs, and any consequent impact on pricing, could lead to a decrease in demand for DFIN's services and products.

If the Company is unable to protect its proprietary technology and other rights, the value of DFIN's business and its competitive position may be impaired.

If the Company is unable to protect its intellectual property, the Company's competitors could use its intellectual property to market services and products similar to DFIN's, which could decrease demand for its services. The Company relies on a combination of patents, trademarks, licensing and other proprietary rights laws, as well as third party nondisclosure agreements and other contractual provisions and technical measures, to protect its intellectual property rights. These protections may not be adequate to prevent competitors from copying or reverse-engineering DFIN's technology and services to create similar offerings. Additionally, any of DFIN's pending or future patent applications may not be issued with the scope of protection the Company seeks, if at all. The scope of patent protection, if any, the Company may obtain is difficult to predict and the patents may be found invalid, unenforceable or of insufficient scope to prevent competitors from offering similar services. DFIN's competitors may independently develop technologies that are substantially equivalent or superior to the Company's technology. To protect DFIN's proprietary information, the Company requires employees, consultants, advisors, independent contractors and collaborators to enter into confidentiality agreements and maintain policies and procedures to limit access to the Company's trade secrets and proprietary information. These agreements and the other actions may not provide meaningful protection for DFIN's proprietary information or know-how from unauthorized use, misappropriation or disclosure. Further, existing patent laws may not provide adequate or meaningful protection in the event competitors independently develop technology, products or services similar to DFIN's. Even if the laws governing intellectual property rights provide protection, the Company may have insufficient resources to take the legal actions necessary to protect its interests. In addition, DFIN's intellectual property rights and interests may not be afforded the same protection under the laws of foreign countries as they are under the laws of the United States.

DFIN's business is dependent upon brand recognition and reputation, and the failure to maintain or enhance the Company's brand or reputation would likely have an adverse effect on its business.

DFIN's brand recognition and reputation are important aspects of the Company's business. Maintaining and further enhancing DFIN's brands and reputation will be important to retaining and attracting clients for DFIN's products. The Company also believes that the importance of DFIN's brand recognition and reputation for products will continue to increase as competition in the market for DFIN's products and industry continues to increase. The Company's success in this area will be dependent on a wide range of factors, some of which are beyond the Company's control, including the efficacy of the Company's marketing efforts, its ability to retain existing and obtain new clients and strategic partners, human error, the quality and perceived value of DFIN's services and products offerings, actions of the Company's competitors and positive or negative publicity. Damage to the Company's reputation and loss of brand equity may reduce demand for DFIN's services and products offerings and negatively impact its results of operations, financial position and cash flow.

The Company may be unable to hire and retain talented employees, including management.

DFIN's success depends, in part, on its general ability to attract, develop, motivate and retain highly skilled employees. The loss of a significant number of employees or the inability to attract, hire, develop, train and retain additional skilled personnel could have a serious negative effect on DFIN's business. Management believes the Company's ability to retain its client base and to attract new clients is directly related to DFIN's sales force and client service personnel, and if the Company cannot retain these key employees, its business could suffer. In addition, many members of DFIN's management have significant industry experience that is valuable to competitors. The Company expects that its executive officers will have non-solicitation agreements contractually prohibiting them from soliciting clients and employees within a specified period of time after they leave DFIN. If one or more members of the senior management team leave and cannot be replaced with a suitable candidate quickly, the Company could experience difficulty in managing its business properly, which could negatively impact its results of operations, financial position and cash flow.

The trend of increasing costs to provide health care and other benefits to employees and retirees may continue.

DFIN provides health care and other benefits to both employees and retirees. For many years, costs for health care have increased more rapidly than general inflation in the U.S. economy. If this trend in health care costs continues, the cost to provide such benefits could increase, adversely impacting profitability. Changes to health care regulations in the U.S. and internationally may also increase cost of providing such benefits.

Changes in market conditions, changes in discount rates, or lower returns on assets may increase required pension and other post-retirement benefit plan contributions in future periods.

The funded status of DFIN's pension and other post-retirement benefits plans is dependent upon many factors, including returns on invested assets and the level of certain interest rates. As experienced in prior years, declines in the market value of the securities held by the plans coupled with historically low interest rates have substantially reduced, and in the future could further reduce, the funded status of the plans. These reductions may increase the level of expected required pension and other post-retirement benefit plan contributions in future years. Various conditions may lead to changes in the discount rates used to value the year-end benefit obligations of the plans, which could partially mitigate, or worsen, the effects of lower asset returns. If adverse conditions were to continue for an extended period of time, the Company's costs and required cash contributions associated with pension and other post-retirement benefit plans may substantially increase in future periods.

The Company is exposed to risks related to potential adverse changes in currency exchange rates.

The Company is exposed to market risks resulting from changes in the currency exchange rates of the currencies in the countries in which it does business. Although operating in local currencies may limit the impact of currency rate fluctuations on the operating results of non-U.S. activities, fluctuations in such rates may affect the translation of these results into DFIN's financial statements. To the extent borrowings, sales, purchases, net sales and expenses or other transactions are not in the applicable local currency, the Company may enter into foreign currency spot and forward contracts to hedge the currency risk. Management cannot be sure, however, that its efforts at hedging will be successful, and such efforts could, in certain circumstances, lead to losses.

There are risks associated with operations outside the United States.

The Company has operations outside the United States. DFIN works with capital markets clients around the world, and in 2019 the International segment accounted for 13% of DFIN's net sales. The Company's operations outside of the United States are primarily focused in Europe, Asia, Canada and Latin America. As a result, the Company is subject to the risks inherent in conducting business outside the United States, including:

- costs of customizing services and products for foreign countries;
- difficulties in managing and staffing international operations;
- increased infrastructure costs including legal, tax, accounting and information technology;
- reduced protection for intellectual property rights in some countries;
- potentially greater difficulties in collecting accounts receivable, including currency conversion and cash repatriation from foreign jurisdictions;
- increased licenses, tariffs and other trade barriers;

- potentially adverse tax consequences;
- increased burdens of complying with a wide variety of foreign laws, including employment-related laws, which may be more stringent than U.S. laws;
- unexpected changes in regulatory requirements;
- political and economic instability; and
- compliance with applicable anti-corruption and sanction laws and regulations.

The Company cannot be sure that its investments or operations in other countries will produce desired levels of net sales or that one or more of the factors listed above will not affect the Company's global business.

The Company has in the past acquired and may in the future to acquire other businesses, and it may be unable to successfully integrate the operations of these businesses and may not achieve the cost savings and increased net sales anticipated as a result of these acquisitions.

Achieving the anticipated benefits of acquisitions will depend in part upon DFIN's ability to integrate these businesses in an efficient and effective manner. The integration of companies that have previously operated independently may result in significant challenges, and the Company may be unable to accomplish the integration smoothly or successfully. In particular, the coordination of geographically dispersed organizations with differences in corporate cultures and management philosophies may increase the difficulties of integration. The integration of acquired businesses may also require the dedication of significant management resources, which may temporarily distract management's attention from the day-to-day operations of the Company. In addition, the process of integrating operations may cause an interruption of, or loss of momentum in, the activities of one or more of the Company's businesses and the loss of key personnel from the Company or the acquired businesses. Further, employee uncertainty and lack of focus during the integration process may disrupt the businesses of the Company or the acquired businesses.

The Company's reliance on strategic partnerships as part of its business strategy may adversely affect the development of DFIN's business in those areas.

The Company's business strategy includes pursuing and maintaining strategic partnerships in order to facilitate its entry into adjacent lines of business. This approach may expose the Company to risk of conflict with its strategic arrangement partners and the need to divert management resources to oversee these partnership arrangements. Further, as these arrangements require cooperation with third party partners, these strategic arrangements may not be able to make decisions as quickly as DFIN would if it was operating on its own or may take actions that are different from what the Company would do on a standalone basis in light of the need to consider DFIN partners' interests. As a result, the Company may be less able to respond timely to changes in market dynamics, which could have a material adverse effect on its business, financial condition and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The Company's corporate office is located in leased office space at 35 West Wacker Drive, Chicago, Illinois, 60601. As of December 31, 2019, the Company leased or owned 40 U.S. facilities, some of which had multiple buildings and warehouses, and these U.S. facilities encompassed approximately 1.3 million square feet. The Company leased 22 international facilities, some of which had multiple buildings and warehouses, encompassing approximately 0.1 million square feet in Europe, Asia, Canada and Latin America. Of the Company's worldwide facilities, approximately 0.3 million square feet of space was owned, while the remaining 1.1 million square feet of space was leased.

ITEM 3. LEGAL PROCEEDINGS

For a discussion of certain litigation involving the Company, see Note 13, *Commitments and Contingencies*, to the Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR DONNELLEY FINANCIAL SOLUTIONS, INC.'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Principal Market

DFIN's common stock began "regular-way" trading under the ticker symbol "DFIN" on the New York Stock Exchange ("NYSE") on October 3, 2016. The following table sets forth, for the periods indicated, the range of the high and low closing prices for the Company's common stock as reported by the NYSE:

| _ | 20 | 19 | 2018 | | | | |
|----------------|-------|----------|----------|----------|--|--|--|
| | Low | High | Low | High | | | |
| First Quarter | 13.57 | \$ 16.91 | \$ 16.87 | \$ 22.00 | | | |
| Second Quarter | 11.98 | 16.08 | 15.31 | 19.26 | | | |
| Third Quarter | 10.62 | 14.01 | 17.42 | 21.25 | | | |
| Fourth Quarter | 9.41 | 11.45 | 13.47 | 17.64 | | | |

Stockholders

As of February 20, 2020, there were 4,200 stockholders of record of the Company's common stock.

Issuer Purchases of Equity Securities

| | Total Number of Shares | | erage Price | Total Number of Shares Purchased as Part of Publicly Announced Plans or | Dollar Value of Shares that May Yet be Purchased Under the Plans or |
|--------------------------------------|------------------------|-------------|-------------|---|--|
| Period | Purchased (a) | <u>Paic</u> | d per Share | Programs | Programs |
| October 1, 2019 - October 31, 2019 | 43,721 | \$ | 11.32 | | \$ — |
| November 1, 2019 - November 30, 2019 | | | | | _ |
| December 1, 2019 - December 31, 2019 | | | | | |
| Total | 43,721 | \$ | 11.32 | | <u> </u> |

(a) Shares withheld for tax liabilities upon vesting of equity awards

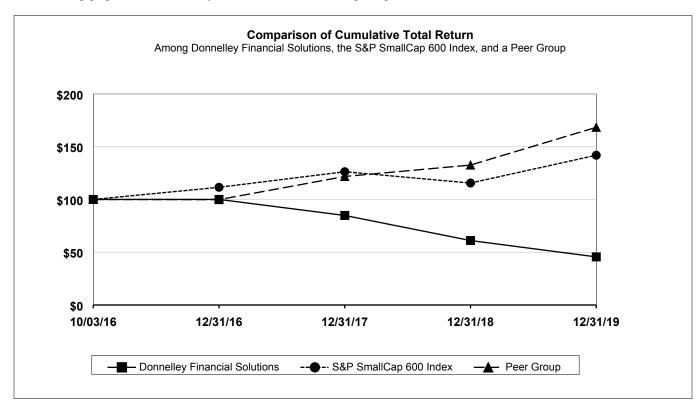
Common Stock Repurchases—On February 4, 2020, the Board of Directors (the "Board") authorized a stock repurchase program, under which the Company is authorized to repurchase up to \$25.0 million of its outstanding common stock from time to time in one or more transactions on the open market or in privately negotiated purchases in accordance with all applicable securities laws and regulations and all repurchases in the open market will be made in compliance with Rule 10b-18 under the Exchange Act. The timing and amount of any shares repurchased will be determined by the Company based on its evaluation of market conditions and other factors. Repurchases may also be made under a Rule 10b5-1 plan, which would permit shares to be repurchased when the Company might otherwise be precluded from doing so under insider trading laws. The stock repurchase program will be effective through December 31, 2021, however, it may be suspended or discontinued at any time.

Equity Compensation Plans

For information regarding equity compensation plans, see Item 12 of Part III of the Annual Report.

PEER PERFORMANCE TABLE

The following graph compares the cumulative total shareholder return on DFIN's common stock from October 3, 2016, when "regular-way" trading in DFIN's common stock began on the NYSE, through December 31, 2019, with the comparable cumulative return of the Standard & Poor's ("S&P") SmallCap 600 Index and a selected peer group of companies. The comparison assumes all dividends have been reinvested and an initial investment of \$100 on October 3, 2016. The returns of each company in the peer group have been weighted to reflect their market capitalizations. The stock price performance on the following graph is not necessarily indicative of future stock price performance.



| | Base Period | December 31, | December 31, | December 31, | December 31, |
|-------------------------------|----------------|--------------|--------------|--------------|--------------|
| Company Name/Index | 10/3/2016 | 2016 | 2017 | 2018 | 2019 |
| Donnelley Financial Solutions | 100 | 100.04 | 84.85 | 61.08 | 45.58 |
| S&P SmallCap 600 Index | 100 | 111.52 | 126.28 | 115.57 | 141.90 |
| Peer Group | 100 | 99.84 | 121.78 | 132.59 | 168.36 |

Below are the specific companies included in the peer group.

Peer Group Companies

Advisory Board Company(a) ARC Document Solutions Inc Bottomline Technologies Inc Broadridge Financial Solutions Inc CoreLogic Inc

CSG Systems International Inc.

DST Systems Inc.(b) Dun & Bradstreet Corp ePlus Inc Euronet Worldwide Inc

FactSet Research Systems Inc.

Gartner Inc

Henry (Jack) & Associates Inc. LiveRamp Holdings Inc. (c)

Perficient Inc

Resources Connection Inc Verint Systems Inc

- Advisory Board Company was included through November 17, 2017, when it was acquired by OptumInsight (a)
- DST Systems Inc. was included through April 16, 2018, when it was acquired by SS&C Technologies (b)
- LiveRamp Holdings Inc. was previously named Acxiom Corp (c)

This performance graph and other information furnished under this Part II Item 5 of this Form 10-K shall not be deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A or 14C, or to the liabilities of Section 18 of the Exchange Act.

ITEM 6. SELECTED FINANCIAL DATA

SELECTED FINANCIAL DATA (in millions, except per share data)

| | Year Ended December 31, | | | | | | | | | |
|---|-------------------------|----|-------|----|---------|----|-------|----|---------|--|
| _ | 2019 | | 2018 | | 2017 | | 2016 | | 2015 | |
| Consolidated and Combined Statements of | | | | | | | | | | |
| Operations data: | | | | | | | | | | |
| Net sales\$ | 874.7 | \$ | 963.0 | \$ | 1,004.9 | \$ | 983.5 | \$ | 1,049.5 | |
| Net earnings | 37.6 | | 73.6 | | 9.7 | | 59.1 | | 104.3 | |
| Net earnings per share ^(a) | | | | | | | | | | |
| Basic | 1.10 | | 2.18 | | 0.29 | | 1.81 | | 3.22 | |
| Diluted | 1.10 | | 2.16 | | 0.29 | | 1.80 | | 3.22 | |
| Consolidated and Combined Balance Sheet data: | | | | | | | | | | |
| Total assets | 886.9 | | 868.7 | | 893.5 | | 978.9 | | 817.6 | |
| Long-term debt | 296.0 | | 362.7 | | 458.3 | | 587.0 | | | |
| Note payable with an RRD affiliate | _ | | | | | | | | 29.2 | |

⁽a) On October 1, 2016, RRD distributed approximately 26.2 million shares of DFIN common stock to RRD shareholders in connection with the spin-off of DFIN, with RRD retaining approximately 6.2 million shares of DFIN common stock. On June 21, 2017, RRD completed the sale of approximately 6.1 million shares of the Company's common stock in an underwritten public offering. Upon consummation of the offering, RRD retained approximately 0.1 million shares of the Company's common stock which were subsequently sold by RRD on August 4, 2017.

For periods prior to the Separation, basic and diluted earnings per share were calculated using the number of shares distributed and retained by RRD, totaling 32.4 million. The same number of shares was used to calculate basic and diluted earnings per share since there were no DFIN equity awards outstanding prior to the spin-off.

The above table reflects results of acquired businesses from the relevant acquisition dates and includes the following significant items:

| | Pre-tax | After-tax |
|---|-----------|-----------|
| Year ended December 31, 2019 | | |
| Net gain on sale of building\$ | (19.2) \$ | (13.7) |
| Gain on equity investment | (13.6) | (9.7) |
| Restructuring, impairment and other charges – net | 13.6 | 9.9 |
| Share-based compensation expense | 8.9 | 7.0 |
| Loss on debt extinguishment | 4.1 | 3.1 |
| Net loss on sale of Language Solutions business | 4.0 | 2.2 |
| Pension settlement charges | 3.9 | 2.8 |
| Investor-related expenses. | 1.5 | 1.1 |
| Acquisition-related expenses | 0.1 | |

| | Pre-tax | After-tax |
|---|--------------|-----------|
| Year ended December 31, 2018 | | |
| Net gain on sale of Language Solutions business. | \$ (53.8) \$ | (38.6) |
| Gain on equity investment | (11.8) | (8.5) |
| Gain on eBrevia investment. | (1.8) | (1.5) |
| Spin-off related transaction expenses | 20.1 | 14.6 |
| Share-based compensation expense | 9.2 | 6.7 |
| Disposition-related expenses | 6.8 | 5.1 |
| Restructuring, impairment and other charges – net | 4.4 | 3.2 |
| Acquisition-related expenses | 0.8 | 0.5 |
| Investor-related expenses | 0.5 | 0.4 |

| | Pre-tax | After-tax |
|---|------------|-----------|
| Year ended December 31, 2017 | | |
| Spin-off related transaction expenses | \$ 16.5 | \$ 9.9 |
| Restructuring, impairment and other charges – net | 7.1 | 4.2 |
| Share-based compensation expense | 6.8 | 4.1 |
| Acquisition-related expenses | 0.2 | 0.1 |
| | Pre-tax | After-tax |
| Year ended December 31, 2016 | | |
| Restructuring, impairment and other charges – net | \$ 5.4 | \$ 3.3 |
| Spin-off related transaction expenses | 4.9 | 3.0 |
| Share-based compensation expense | 2.5 | 1.5 |
| | Pre-tax | After-tax |
| Year ended December 31, 2015 | | |
| Restructuring, impairment and other charges – net | \$ 4.4 | \$ 2.8 |
| Share-based compensation expense | 1.6 | 1.0 |

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of DFIN's financial condition and results of operations should be read together with other sections of this Annual Report, including "Item 1. Business," "Item 6. Selected Financial Data" and the consolidated financial statements and notes to those statements included in this Annual Report.

This Management's Discussion and Analysis of Financial Condition and Results of Operations contains a number of forward-looking statements, all of which are based on the Company's current expectations and could be affected by the uncertainties and other factors described throughout this Annual Report and particularly in "Item 1A. Risk Factors" and "Special Note Regarding Forward-Looking Statements."

Business

For a description of the Company's business, segments and product and service offerings, see Item 1, *Business*, of Part I of this Annual Report.

The Company separately reports its net sales and related cost of sales for its services and products offerings. The Company's services offerings consist of all non-print offerings, including document composition, compliance-related EDGAR filing services, transaction solutions, and the Company's SaaS solutions, including Venue, FundSuiteArc, ActiveDisclosure and data and analytics, and others. The Company's product offerings primarily consist of conventional and digital printed products and related shipping costs.

Spin-off Transaction

On October 1, 2016, DFIN became an independent publicly traded company through the distribution by RRD of approximately 26.2 million shares, or 80.75%, of DFIN common stock to RRD shareholders. Holders of RRD common stock received one share of DFIN common stock for every eight shares of RRD common stock held on September 23, 2016. As part of the Separation, RRD retained approximately 6.2 million shares of DFIN common stock, or a 19.25% interest in DFIN, of which 6.1 million shares and 0.1 million shares were subsequently sold in June 2017 and August 2017, respectively.

DFIN's common stock began "regular-way" trading under the ticker symbol "DFIN" on the New York Stock Exchange on October 3, 2016. On October 1, 2016, RRD also completed the previously announced separation of LSC, its publishing and retail-centric print services and office products business. On March 28, 2017, RRD completed the sale of 6.2 million shares of LSC common stock (RRD's remaining ownership stake in LSC) in an underwritten public offering. As a result, beginning in the quarter ended June 30, 2017, LSC no longer qualified as a related party of the Company. Beginning in the quarter ended September 30, 2017, RRD no longer qualified as a related party, therefore amounts disclosed related to RRD are presented through June 30, 2017 only.

Executive Overview

2019 Overview

Net sales decreased by \$88.3 million, or 9.2%, in 2019 compared to 2018, including a \$41.8 million, or 4.3%, decrease due to the impact of the sale of the Language Solutions business in July 2018 and a \$3.0 million decrease due to changes in foreign exchange rates. The remaining decline in net sales was primarily due to lower capital markets transactions and compliance volumes, which was partially offset by growth in SaaS solutions, primarily in ActiveDisclosure and FundSuiteArc, growth in mutual fund print volumes and the impact from the acquisition of eBrevia.

Income from operations for the year ended December 31, 2019 decreased \$42.6 million, or 35.2%, to \$78.5 million from \$121.1 million for the year ended December 31, 2018, primarily due to the \$53.8 million gain on sale of the Language Solutions business recognized during the year ended December 31, 2018, partially offset by the \$19.2 million net gain recognized from the sale of a building during the year ended December 31, 2019. The remaining decrease in income from operations was driven by lower capital markets transactions and compliance volumes, as well as higher restructuring, impairment and other charges, partially offset by lower spin-off related transaction expenses, disposition-related expenses and incentive compensation expense, as well as growth in the Company's SaaS offerings and mutual fund print volume.

Outlook

In 2020, the Company expects net sales to be relatively flat, as compared to 2019, with the Company's SaaS portfolio providing top line growth, offset by a decline in print-related services and products sales in both Capital Markets and Investment Markets. Accordingly, the Company also expects margin improvement in 2020 from mix and cost control actions. The Company does not expect foreign exchange rates to have a significant impact on results.

Cash flows from operations in 2020 are expected to benefit from cost control actions and significantly lower cash interest expense. The Company expects capital expenditures to be approximately \$35.0 million in 2020, as compared to \$44.8 million in 2019.

Financial Review

In the financial review that follows, the Company discusses its consolidated results of operations, cash flows and certain other information. This discussion should be read in conjunction with the Company's consolidated financial statements and the related notes.

The Company's Annual Report on Form 10-K for the year ended December 31, 2018 includes a discussion and analysis of the Company's financial condition and results of operations for the year ended December 31, 2017 and year-to-year comparisons of 2018 and 2017, which are not included in this Annual Report, in Item 7 of Part II, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Results of Operations for the Year Ended December 31, 2019 as Compared to the Year Ended December 31, 2018

The following table shows the results of operations for the years ended December 31, 2019 and 2018:

| | 2 | 2019 | 2018 | | \$ Change | | % Change |
|---|----|--------|-------|-------------|-----------|-------------|----------|
| | | (iı | n mil | lions, exce | ept pe | ercentages) | |
| Services net sales | \$ | 554.0 | \$ | 618.0 | \$ | (64.0) | (10.4%) |
| Products net sales | | 320.7 | | 345.0 | | (24.3) | (7.0%) |
| Total net sales | | 874.7 | | 963.0 | | (88.3) | (9.2%) |
| Services cost of sales (exclusive of depreciation and amortization) | | 284.8 | | 328.8 | | (44.0) | (13.4%) |
| Products cost of sales (exclusive of depreciation and amortization) | | 257.6 | | 258.5 | | (0.9) | (0.3%) |
| Total cost of sales | | 542.4 | | 587.3 | | (44.9) | (7.6%) |
| Selling, general and administrative expenses (exclusive of depreciation | | | | | | | |
| and amortization) | | 205.8 | | 258.2 | | (52.4) | (20.3%) |
| Restructuring, impairment and other charges-net | | 13.6 | | 4.4 | | 9.2 | 209.1% |
| Depreciation and amortization. | | 49.6 | | 45.8 | | 3.8 | 8.3% |
| Other operating income | | (15.2) | | (53.8) | | 38.6 | (71.7%) |
| Income from operations | \$ | 78.5 | \$ | 121.1 | \$ | (42.6) | (35.2%) |

Consolidated

Net sales of services for the year ended December 31, 2019 decreased \$64.0 million, or 10.4%, to \$554.0 million versus the year ended December 31, 2018, including a decrease of \$41.8 million, or 6.8%, due to the July 2018 sale of the Language Solutions business and a \$2.4 million decrease due to changes in foreign exchange rates. In addition, net sales of services decreased due to lower capital markets transactions and compliance volumes, partially offset by growth in SaaS solutions, primarily in ActiveDisclosure and FundSuiteArc, as well as impact from the acquisition of eBrevia.

Net sales of products for the year ended December 31, 2019 decreased \$24.3 million, or 7.0%, to \$320.7 million versus the year ended December 31, 2018, including a \$0.6 million decrease due to changes in foreign exchange rates. Net sales of products decreased due to lower volumes in capital markets transactions and commercial print volumes, partially offset by higher mutual fund print volumes.

Services cost of sales decreased \$44.0 million, or 13.4%, to \$284.8 million for the year ended December 31, 2019, versus the year ended December 31, 2018, primarily due to the impact from the sale of the Language Solutions business. In addition, services cost of sales decreased due to lower capital markets transactions and compliance volumes and the impact of cost control initiatives. As a percentage of net services sales, services cost of sales decreased 1.8%, primarily due to favorable mix.

Products cost of sales decreased \$0.9 million, or 0.3%, to \$257.6 million for the year ended December 31, 2019, versus the year ended December 31, 2018. Products cost of sales decreased due to lower capital markets transactions and commercial print volumes as well as cost control initiatives, partially offset by higher mutual fund print volumes. As a percentage of net product sales, products cost of sales increased 5.4%, primarily due to unfavorable mix.

SG&A expenses for the year ended December 31, 2019 decreased \$52.4 million, or 20.3%, to \$205.8 million, as compared to the year ended December 31, 2018, primarily due to cost control initiatives, lower spin-off related and disposition-related expenses, lower selling expenses as a result of lower volume, and the impact from the sale of the Language Solutions business. As a percentage of net sales, SG&A expenses decreased from 26.8% for the year ended December 31, 2018 to 23.5% for the year ended December 31, 2019.

Restructuring, impairment and other charges, net for the year ended December 31, 2019, totaled \$13.6 million compared to \$4.4 million for the year ended December 31, 2018, an increase of \$9.2 million. The increase was primarily driven by \$9.1 million of employee termination costs for 271 employees, substantially all of whom were terminated as of December 31, 2019. For the year ended December 31, 2018, the Company incurred \$3.4 million of employee termination costs for 89 employees, all of whom were terminated as of December 31, 2019. These restructuring charges in both periods primarily related to the reorganization of certain operations and certain administrative functions. Additionally, the Company recognized a \$2.0 million impairment charge related to an equity investment during the year ended December 31, 2019.

Depreciation and amortization for the year ended December 31, 2019 increased \$3.8 million, or 8.3%, to \$49.6 million compared to the year ended December 31, 2018. Depreciation and amortization included \$14.3 million and \$13.7 million of amortization of other intangible assets for the years ended December 31, 2019 and 2018, respectively.

Other operating income for the year ended December 31, 2019 included a \$19.2 million net gain recognized from the sale of a building, partially offset by a \$4.0 million loss recognized in 2019 related to the 2018 disposition of the Language Solutions business. Other operating income for the year ended December 31, 2018 included a \$53.8 million gain recognized on the sale of the Language Solutions business.

Income from operations for the year ended December 31, 2019 decreased \$42.6 million, or 35.2%, to \$78.5 million from \$121.1 million for the year ended December 31, 2018, primarily due to the \$53.8 million gain on sale of the Language Solutions business recognized during the year ended December 31, 2018, partially offset by the \$19.2 million net gain recognized from the sale of a building during the year ended December 31, 2019. The remaining decrease in income from operations was driven by lower capital markets transactions and compliance volumes, as well as higher restructuring, impairment and other charges, partially offset by lower spin-off related transaction expenses, disposition-related expenses and incentive compensation expense, as well as growth in the Company's SaaS offerings and mutual fund print volume.

| | 2019 | | 2018 | \$ Cha | nge | % Change |
|----------------------|------------|-------|---------------|-----------|--------|----------|
| | | (in m | illions, exce | pt percen | tages) | |
| Interest expense-net | \$ 38.1 | \$ | 36.7 | \$ | 1.4 | 3.8% |

Net interest expense increased by \$1.4 million for the year ended December 31, 2019, to \$38.1 million, versus the year ended December 31, 2018, primarily due to a loss on extinguishment of debt of \$4.1 million, partially offset by a decrease in average outstanding debt. Refer to *Liquidity and Capital Resources* for further discussion.

Net investment and other income for the year ended December 31, 2019 of \$11.7 million primarily consisted of a \$13.6 million gain related to an equity investment, partially offset by \$1.8 million of non-cash pension expense. Net investment and other income for the year ended December 31, 2018 primarily consisted of an \$11.8 million gain related to an equity investment and net pension plan income.

| | 2019 | | 2018 | | \$ Change | | % Change |
|------------------------------|------|-------|-------|----------------|-----------|-----------|----------|
| | | | (in n | nillions, exce | pt per | centages) | |
| Earnings before income taxes | \$ | 52.1 | \$ | 102.7 | \$ | (50.6) | (49.3%) |
| Income tax expense | | 14.5 | | 29.1 | | (14.6) | (50.2%) |
| Effective income tax rate | | 27.8% |) | 28.3% | Ó | | |

The effective income tax rate was 27.8% for the year ended December 31, 2019 compared to 28.3% for the year ended December 31, 2018. The 2019 effective income tax rate was impacted by favorable return to provision adjustments primarily related to foreign-derived intangible income, state and local income taxes and income tax credits, partially offset by increases in valuation allowances and non-deductible expenses. Refer to Note 15, *Income Taxes*, for further details.

Information by Segment

The following tables summarize net sales, income (loss) from operations and certain items impacting comparability within each of the operating segments and Corporate.

U.S.

| | Year Ended December 31, | | | | | |
|--|-------------------------|-----------|-------|--|--|--|
| | 2019 | | 2018 | | | |
| | (in millions, excep | t percent | ages) | | | |
| Net sales\$ | 761.4 | \$ | 811.8 | | | |
| Income from operations | 113.5 | | 134.0 | | | |
| Operating margin | 14.9% | | 16.5% | | | |
| Net gain on sale of building | 19.2 | | | | | |
| Restructuring, impairment and other charges-net | 7.5 | | 2.0 | | | |
| (Loss) gain on sale of Language Solutions business | (2.7) | | 26.6 | | | |
| Spin-off related transaction expenses | - | | 16.5 | | | |

| | Net Sales for the | | | | | | | | |
|--------------------|------------------------|-----------|-----|--------------|------|--------------|----------|--|--|
| | Year Ended December 31 | | | | | | | | |
| Reporting unit | | 2019 2018 | | | | \$ Change | % Change | | |
| | | | (in | millions, ex | cept | percentages) | | | |
| Capital Markets | \$ | 421.0 | \$ | 456.0 | \$ | (35.0) | (7.7%) | | |
| Investment Markets | | 340.4 | | 342.1 | | (1.7) | (0.5%) | | |
| Language Solutions | | | | 13.7 | | (13.7) | (100.0%) | | |
| Total U.S. | \$ | 761.4 | \$ | 811.8 | \$ | (50.4) | (6.2%) | | |

Net sales for the U.S. segment for the year ended December 31, 2019 were \$761.4 million, a decrease of \$50.4 million, or 6.2%, compared to the year ended December 31, 2018. Net sales decreased due to lower capital markets transaction volumes, the sale of the Language Solutions business and lower volumes in capital markets compliance and commercial print, partially offset by growth in SaaS solutions, primarily ActiveDisclosure, FundSuiteArc and the acquisition of eBrevia. An analysis of net sales by reporting unit follows:

- <u>Capital Markets:</u> Sales decreased due to lower capital markets transactions and compliance volumes, partially offset by higher volumes in ActiveDisclosure and the acquisition of eBrevia.
- <u>Investment Markets:</u> Sales remained relatively flat as lower commercial print volumes were mostly offset by higher mutual fund print volumes and higher FundSuiteArc volumes.
- <u>Language Solutions:</u> There were no sales during the year ended December 31, 2019 due to the sale of the Language Solutions business in July 2018.

U.S. segment income from operations for the year ended December 31, 2019 decreased \$20.5 million to \$113.5 million, or 15.3%, as compared to the year ended December 31, 2018, primarily due to lower net sales volumes, unfavorable product mix and higher restructuring, impairment and other charges. The decrease was partially offset by the net gain recognized from the sale of a building as well as lower spin-off related transaction expenses, cost control initiatives and lower incentive compensation expense. U.S. segment income was also favorably impacted during the year ended December 31, 2018 by the gain on sale of the Language Solutions business.

Operating margins decreased from 16.5% for the year ended December 31, 2018 to 14.9% for the year ended December 31, 2019, of which 3.6% was due to the net gain on the sale of the Language Solutions business, partially offset by spin-off related transaction expenses in 2018, which impacted margins by 2.0%. Unfavorable product mix also contributed to the decline in operating margin versus the prior year, partially offset by cost control initiatives. Operating margins were also favorably impacted in 2019 by 2.5% from the net gain on the sale of a building.

International

| | Year Ended December 31, | | | | | | | |
|--|-----------------------------------|----|-------|--|--|--|--|--|
| | 2019 | | 2018 | | | | | |
| | (in millions, except percentages) | | | | | | | |
| Net sales | \$ 113.3 | \$ | 151.2 | | | | | |
| (Loss) income from operations | (2.3) | | 31.6 | | | | | |
| Operating margin | (2.0)% | | 20.9% | | | | | |
| (Loss) gain on sale of Language Solutions business | (1.3) | | 27.2 | | | | | |
| Restructuring, impairment and other charges-net | 2.2 | | 1.8 | | | | | |
| Disposition-related expenses | | | 1.4 | | | | | |

Net sales for the International segment for the year ended December 31, 2019 were \$113.3 million, a decrease of \$37.9 million, or 25.1%, compared to the year ended December 31, 2018, primarily due to the \$28.1 million decrease as a result of the sale of the Language Solutions business in 2018, a \$3.0 million, or 2.0%, decrease due to changes in foreign exchange rates as well as lower capital markets transactions and mutual fund volumes, partially offset by higher FundSuiteArc volumes.

International segment income from operations for the year ended December 31, 2019 decreased \$33.9 million to a loss of \$2.3 million, compared to the year ended December 31, 2018, primarily due to the impact from the sale of the Language Solutions business, lower capital markets transaction and mutual fund volumes and an increase in information technology expenses allocated to the International segment, partially offset by higher FundSuiteArc volumes and cost control initiatives.

Operating margins decreased from 20.9% for the year ended December 31, 2018 to (2.0)% for the year ended December 31, 2019 primarily due to the impact of the prior year gain on sale of the Language Solutions business, which unfavorably impacted margins by 19.2 percentage points, as well as unfavorable mix and higher information technology expenses allocated to the International segment, partially offset by cost control initiatives.

Corporate

The following table summarizes unallocated operating expenses and certain items impacting comparability within the activities presented as Corporate:

| | | Year Ended December 31, | | | | | |
|---|----|-------------------------|---------|------|--|--|--|
| | 20 | 19 | | 2018 | | | |
| | | (in mi | llions) | | | | |
| Operating expenses | \$ | 32.7 | \$ | 44.5 | | | |
| Share-based compensation expense | | 8.9 | | 9.2 | | | |
| Restructuring, impairment and other charges-net | | 3.9 | | 0.6 | | | |
| Investor-related expenses | | 1.5 | | 0.5 | | | |
| Acquisition-related expenses | | 0.1 | | 0.8 | | | |
| Disposition-related expenses | | | | 5.4 | | | |
| Spin-off related transaction expenses | | | | 3.6 | | | |

Corporate operating expenses for the year ended December 31, 2019 decreased \$11.8 million to \$32.7 million versus the year ended December 31, 2018 due to lower disposition-related expenses and spin-off related transaction expenses, partially offset by an increase in restructuring, impairment and other charges and investor-related expenses.

Non-GAAP Measures

The Company believes that certain Non-GAAP measures, such as Non-GAAP adjusted EBITDA, provide useful information about the Company's operating results and enhance the overall ability to assess the Company's financial performance. The Company uses these measures, together with other measures of performance under GAAP, to compare the relative performance of operations in planning, budgeting and reviewing the performance of its business. Non-GAAP adjusted EBITDA allows investors to make a more meaningful comparison between the Company's core business operating results over different periods of time. The Company believes that Non-GAAP adjusted EBITDA, when viewed with the Company's results under GAAP and the accompanying reconciliations, provides useful information about the Company's business without regard to potential distortions. By eliminating potential differences in results of operations between periods caused by factors such as depreciation and amortization methods, historic cost and age of assets, restructuring, impairment and other charges, acquisition-related expenses, loss on debt extinguishment, and gain or loss on certain equity investments and asset sales, the Company believes that Non-GAAP adjusted EBITDA can provide a useful additional basis for comparing the current performance of the underlying operations being evaluated.

Non-GAAP adjusted EBITDA is not presented in accordance with GAAP and has important limitations as an analytical tool. These measures should not be considered as a substitute for analysis of the Company's results as reported under GAAP. In addition, these measures are defined differently by different companies and, accordingly, such measures may not be comparable to similarly-titled measures of other companies.

In addition to the factors listed above, the following items are excluded from Non-GAAP adjusted EBITDA:

- **Share-based compensation expense**. Although share-based compensation is a key incentive offered to certain of the Company's employees, business performance is evaluated excluding share-based compensation expenses. Depending upon the size, timing and the terms of grants, non-cash compensation expense may vary but will recur in future periods.
- Investor-related expenses. Expenses incurred related to non-routine investor matters, which include third-party
 advisory and consulting fees and legal fees.
- **Spin-off related transaction expenses.** The Company has incurred expenses related to the Separation to operate as a standalone publicly traded company. These expenses include third-party consulting fees, information technology expenses, employee retention payments, legal fees and other costs related to the Separation, including system implementation expenses related to transitioning from transition service agreements with RRD and LSC. Management does not believe that these expenses are reflective of ongoing operating results.
- **Disposition-related expenses.** Expenses incurred related to the disposition of the Language Solutions business. These expenses primarily include legal fees, third-party advisory and consulting fees and other costs related to the disposition.

A reconciliation of GAAP net earnings to Non-GAAP adjusted EBITDA for the years ended December 31, 2019, 2018 and 2017 for these adjustments is presented in the following table:

| | Year ended December 31, | | | | | | | | |
|--|-------------------------|--------|----|---------------|----|-------|--|--|--|
| | 2019 | | | 2018 | | 2017 | | | |
| | | | | (in millions) | | | | | |
| Net earnings | \$ | 37.6 | \$ | 73.6 | \$ | 9.7 | | | |
| Net gain on sale of building | | (19.2) | | | | | | | |
| Gain on equity investment | | (13.6) | | (11.8) | | | | | |
| Restructuring, impairment and other charges—net | | 13.6 | | 4.4 | | 7.1 | | | |
| Share-based compensation expense | | 8.9 | | 9.2 | | 6.8 | | | |
| Net loss (gain) on sale of Language Solutions business | | 4.0 | | (53.8) | | | | | |
| Pension settlement charges | | 3.9 | | | | | | | |
| Investor-related expenses | | 1.5 | | 0.5 | | | | | |
| Acquisition-related expenses | | 0.1 | | 0.8 | | 0.2 | | | |
| Gain on eBrevia investment | | | | (1.8) | | | | | |
| Spin-off related transaction expenses | | | | 20.1 | | 16.5 | | | |
| Disposition-related expenses | | | | 6.8 | | | | | |
| Depreciation and amortization | | 49.6 | | 45.8 | | 44.5 | | | |
| Interest expense—net | | 38.1 | | 36.7 | | 42.9 | | | |
| Pension income and other income—net | | (2.0) | | (4.7) | | (3.4) | | | |
| Income tax expense | | 14.5 | | 29.1 | | 46.5 | | | |
| Non-GAAP adjusted EBITDA | \$ | 137.0 | \$ | 154.9 | \$ | 170.8 | | | |

Net gain on sale of building. Included a pre-tax net gain of \$19.2 million related to the sale of a building for the year ended December 31, 2019.

Gain on equity investment. Included pre-tax gains of \$13.6 million and \$11.8 million for the years ended December 31, 2019 and 2018, respectively.

Restructuring, impairment and other charges—net. The year ended December 31, 2019 included \$9.1 million of charges for employee termination costs, a \$2.0 million impairment charge related to an equity investment, \$1.1 million in other restructuring charges and a \$1.0 million impairment charge related to customer relationship intangible assets in the Company's European operations. The year ended December 31, 2018 included \$3.4 million for employee termination costs, \$0.8 million of net lease termination and other restructuring costs. The year ended December 31, 2017 included \$6.4 million for employee termination costs, \$0.3 million of net lease termination and other restructuring costs and \$0.2 million of net impairment charges related to leasehold improvements associated with facility closures.

Share-based compensation expense. Included pre-tax charges of \$8.9 million, \$9.2 million and \$6.8 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Net loss (gain) on sale of Language Solutions business. Included pre-tax charges of \$4.0 million for the year ended December 31, 2019 related to the July 2018 disposition of the Language Solutions business. Included pre-tax gain of \$53.8 million related to the disposition of the Language Solutions business for the year ended December 31, 2018.

Pension settlement charges. Included non-cash settlement charges of \$3.9 million, recorded within net investment and other income during the year ended December 31, 2019, representing a proportional amount of the actuarial losses recorded in accumulated other comprehensive loss resulting from pension obligations settled during the period.

Investor-related expenses. Included pre-tax charges of \$1.5 million and \$0.5 million related to non-routine investor matters for the years ended December 31, 2019 and 2018, respectively. These expenses include third-party advisory and consulting fees and legal fees.

Acquisition-related expenses. Included pre-tax charges of \$0.1 million, \$0.8 million and \$0.2 million primarily related to legal expenses for the years ended December 31, 2019, 2018, and 2017, respectively, associated with completed or contemplated acquisitions.

Gain on eBrevia investment. Included pre-tax gain of \$1.8 million for the year ended December 31, 2018 as a result of the acquisition of eBrevia, in which the Company previously held an investment.

Spin-off related transaction expenses. Included pre-tax charges of \$20.1 million and \$16.5 million related to third-party consulting fees, information technology expenses, legal fees and other costs related to the Separation for the years ended December 31, 2018 and 2017, respectively.

Disposition-related expenses. Included pre-tax charges of \$6.8 million primarily related to the disposition of the Language Solutions business, including legal fees, third party advisory and consulting fees and other costs for the year ended December 31, 2018.

Liquidity and Capital Resources

The Company believes it has sufficient liquidity to support its ongoing operations and to invest in future growth to create value for its shareholders. Cash on hand, operating cash flows and the Company's \$300.0 million Revolving Facility are the primary sources of liquidity and are expected to be used for, among other things, payment of interest and principal on the Company's debt obligations, capital expenditures necessary to support productivity improvement and growth, acquisitions and completion of restructuring programs.

The Company maintains cash pooling structures that enable participating international locations to draw on the pools' cash resources to meet local liquidity needs. Foreign cash balances may be loaned from certain cash pools to U.S. operating entities on a temporary basis in order to reduce the Company's short-term borrowing costs or for other purposes. The Company has the ability to repatriate any previously taxed foreign cash associated with the foreign earnings subject to the U.S. parent with minimal tax consequences. The Company maintains its assertion of indefinite reinvestment on all foreign earnings and other outside basis differences to indicate that the Company remains indefinitely reinvested in operations outside of the U.S., with the exception of the previously taxed foreign cash already subject to U.S. tax. The Company repatriated excess cash at its foreign subsidiaries to the U.S. during the year ended December 31, 2019 and does not plan to make additional cash repatriations during 2020.

Cash and cash equivalents were \$17.2 million as of December 31, 2019, a decrease of \$30.1 million as compared to December 31, 2018. Cash and cash equivalents at December 31, 2019 included \$11.0 million in the U.S. and \$6.2 million at international locations.

The following describes the Company's cash flows for the years ended December 31, 2019 and 2018.

| | Year Ended December 31, | | | | | | | |
|--|-------------------------|--------|----|--------|----|--------|--|--|
| | | 2019 | | 2018 | | 2017 | | |
| Net cash provided by operating activities | \$ | 54.5 | \$ | 66.3 | \$ | 91.4 | | |
| Net cash (used in) provided by investing activities | | (12.2) | | 30.2 | | (31.0) | | |
| Net cash used in financing activities | | (74.5) | | (99.0) | | (45.7) | | |
| Effect of exchange rate on cash and cash equivalents | | 2.1 | | (2.2) | | 1.1 | | |
| Net (decrease) increase in cash and cash equivalents | \$ | (30.1) | \$ | (4.7) | \$ | 15.8 | | |

Cash Flows Provided By Operating Activities

Operating cash inflows are largely attributable to sales of the Company's services and products as well as recurring expenditures for labor, rent, raw materials and other operating activities.

2019 compared to 2018

Net cash provided by operating activities was \$54.5 million for the year ended December 31, 2019 compared to \$66.3 million for the year ended December 31, 2018. The decrease of \$11.8 million was primarily due to unfavorable operating results and higher cash paid for income taxes, offset by a reduction in interest payments. Cash paid for income taxes, net of refunds, increased by \$14.9 million to \$25.0 million in 2019, from \$10.1 million in 2018, due primarily to the payment of taxes in 2019 on the gain from the 2018 sale of the Language Solutions business as well as the net gain from the sale of a building in 2019. The Company's interest payments decreased by \$2.7 million to \$31.9 million in 2019, from \$34.6 million in 2018, due primarily to the repayment of the Company's Term Loan Credit Facility. Accounts receivable increased operating cash flows by \$8.7 million in 2019, as compared to an outflow of \$25.3 million in 2018, due to increased collections efforts and the timing of customer payments in 2019. Accounts payable and accrued liabilities and other decreased operating cash flows by \$27.1 million in 2019, as compared to an inflow of \$9.0 million in 2018, primarily due to the timing of supplier payments.

2018 compared to 2017

Net cash provided by operating activities was \$66.3 million for the year ended December 31, 2018 compared to \$91.4 million for the year ended December 31, 2017. The decrease in net cash provided by operating activities reflected timing of customer and supplier payments and higher payments for incentive compensation partially offset by lower payments related to taxes and interest.

Cash Flows (Used In) Provided By Investing Activities

2019 compared to 2018

Net cash used in investing activities was \$12.2 million for the year ended December 31, 2019 compared to \$30.2 million provided by investing activities for the year ended December 31, 2018. For the year ended December 31, 2019, cash used in investing activities included \$30.6 million of proceeds from the sale of a building, \$12.8 million of proceeds from the sale of an equity investment, partially offset by \$4.5 million of payments for the acquisition of eBrevia and a \$4.0 million payment related to the 2018 disposition of the Language Solutions business. Capital expenditures were \$44.8 million during the year ended December 31, 2019, an increase of \$7.7 million as compared to the same period of 2018. The increase in capital expenditures was primarily driven by an investment in digital printers and additional investments in software development during the year ended December 31, 2019. For the year ended December 31, 2018, cash provided by investing activities included \$77.5 million net proceeds from the sale of the Language Solutions business, partially offset by \$12.5 million of cash paid for the acquisition of eBrevia.

2018 compared to 2017

Net cash provided by investing activities was \$30.2 million for the year ended December 31, 2018 compared to \$31.0 million used in investing for the year ended December 31, 2017. Capital expenditures were \$37.1 million during the year ended December 31, 2018, an increase of \$9.3 million as compared to the same period of 2017. For the year ended December 31, 2018, cash provided by investing activities included \$77.5 million net proceeds from the sale of the Language Solutions business, partially offset by \$12.5 million of cash paid for the acquisition of eBrevia. For the year ended December 31, 2017, cash used in investing activities included \$3.4 million for the purchase of an investment in AuditBoard.

Cash Flows Used In Financing Activities

2019 compared to 2018

Net cash used in financing activities for the year ended December 31, 2019 was \$74.5 million compared to \$99.0 million for the year ended December 31, 2018. In 2019, the receipt of \$515.5 million of proceeds from revolving facility borrowings was offset by \$515.5 million of repayments. Additionally, during the year ended December 31, 2019, the Company paid in full the \$72.5 principal balance due on its Term Loan Credit Facility. Net cash used in financing activities for the year ended December 31, 2018 reflected \$97.5 million of payments on the Term Loan Credit Facility.

2018 compared to 2017

Net cash used in financing activities for the year ended December 31, 2018 was \$99.0 million compared to \$45.7 million for the year ended December 31, 2017. Net cash used in financing activities for the year ended December 31, 2018 reflected \$97.5 million of payments on the Term Loan Credit Facility. Net cash used in financing activities for the year ended December 31, 2017 reflected \$133.0 million in payments on long-term debt, offset by a \$68.0 million Separation-related payment from RRD and \$18.8 million of proceeds from the issuance of common stock.

Contractual Cash Obligations and Other Commitments and Contingencies

The following table quantifies the Company's future contractual obligations as of December 31, 2019:

| Payments Due In | | | | | | | | | | | | | |
|-----------------|-------|--|---|--|---|---|--|---|---|---|--|--|--|
| | Total | | 2020 | 2 | 2021 | | 2022 | | 2023 | | 2024 | The | reafter |
| | | | | | (| in n | nillions |) | | | | | |
| \$ | 300.0 | \$ | | \$ | _ | \$ | _ | \$ | _ | | \$ 300.0 | \$ | |
| | 124.0 | | 24.8 | | 24.8 | | 24.8 | | 24.8 | | 24.8 | | |
| | 105.3 | | 30.6 | | 24.1 | | 19.1 | | 12.6 | | 9.6 | | 9.3 |
| | 32.7 | | 26.2 | | 6.0 | | 0.5 | | | | | | |
| | 22.9 | | 2.9 | | 3.3 | | 6.4 | | 5.1 | | 2.1 | | 3.1 |
| | 7.0 | | 7.0 | | | | _ | | | | | | |
| | | | | | | | | | | | | | |
| | 5.3 | | 0.4 | | 0.4 | | 0.4 | | 0.4 | | 0.4 | | 3.3 |
| | | | | | | | | | | | | | |
| | 3.1 | | 1.4 | | 1.7 | | _ | | | | | | |
| | 7.7 | | 5.1 | | 0.2 | | 0.2 | | 0.4 | | 0.4 | | 1.4 |
| \$ | 608.0 | \$ | 98.4 | \$ | 60.5 | \$ | 51.4 | \$ | 43.3 | | \$ 337.3 | \$ | 17.1 |
| | \$ | 124.0 105.3 32.7 22.9 7.0 5.3 | \$ 300.0 \$ 124.0 105.3 32.7 22.9 7.0 5.3 3.1 7.7 | \$ 300.0 \$ — 124.0 24.8 105.3 30.6 32.7 26.2 22.9 2.9 7.0 7.0 5.3 0.4 3.1 1.4 7.7 5.1 | \$ 300.0 \$ — \$ 124.0 24.8 105.3 30.6 32.7 26.2 22.9 2.9 7.0 7.0 5.3 0.4 3.1 1.4 7.7 5.1 | Total 2020 2021 \$ 300.0 \$ — \$ — 124.0 24.8 24.8 105.3 30.6 24.1 32.7 26.2 6.0 22.9 2.9 3.3 7.0 7.0 — 5.3 0.4 0.4 3.1 1.4 1.7 7.7 5.1 0.2 | Total 2020 2021 2 \$ 300.0 \$ — \$ — \$ \$ 124.0 24.8 24.8 24.8 \$ 105.3 30.6 24.1 24.2 24.2 \$ 22.9 2.9 3.3 | Total 2020 2021 2022 (in millions) \$ 300.0 \$ — \$ — \$ — 124.0 24.8 24.8 24.8 105.3 30.6 24.1 19.1 32.7 26.2 6.0 0.5 22.9 2.9 3.3 6.4 7.0 7.0 — — 5.3 0.4 0.4 0.4 3.1 1.4 1.7 — 7.7 5.1 0.2 0.2 | Total 2020 2021 2022 2 \$ 300.0 \$ — \$ — \$ — \$ \$ 124.0 24.8 24.8 24.8 24.8 \$ 105.3 30.6 24.1 19.1 32.7 26.2 6.0 0.5 \$ 22.9 2.9 3.3 6.4 7.0 7.0 — — \$ 5.3 0.4 0.4 0.4 0.4 \$ 3.1 1.4 1.7 — — \$ 7.7 5.1 0.2 0.2 — | Total 2020 2021 2022 2023 (in millions) (in millions) | Total 2020 2021 2022 2023 (in millions) \$ - \$ - \$ - \$ - 124.0 24.8 24.8 24.8 24.8 105.3 30.6 24.1 19.1 12.6 32.7 26.2 6.0 0.5 - 22.9 2.9 3.3 6.4 5.1 7.0 7.0 - - - 5.3 0.4 0.4 0.4 0.4 3.1 1.4 1.7 - - 7.7 5.1 0.2 0.2 0.4 | Total 2020 2021 2022 2023 2024 \$ 300.0 \$ — \$ — \$ — \$ — \$ 300.0 \$ 124.0 \$ 24.8 \$ 24.8 \$ 24.8 \$ 24.8 \$ 24.8 \$ 105.3 \$ 30.6 \$ 24.1 \$ 19.1 \$ 12.6 \$ 9.6 \$ 32.7 \$ 26.2 \$ 6.0 \$ 0.5 — — \$ 22.9 \$ 2.9 \$ 3.3 \$ 6.4 \$ 5.1 \$ 2.1 \$ 7.0 \$ 7.0 — — — — \$ 5.3 \$ 0.4 \$ 0.4 \$ 0.4 \$ 0.4 \$ 0.4 \$ 3.1 \$ 1.4 \$ 1.7 — — — — \$ 7.7 \$ 5.1 \$ 0.2 \$ 0.2 \$ 0.4 \$ 0.4 \$ 0.4 | Total 2020 2021 2022 2023 2024 The result of |

- (a) Excludes unamortized debt issuance costs of \$4.0 million which do not represent contractual commitments with a fixed amount or maturity date.
- (b) Operating leases include the Company's obligations to landlords and have not been reduced for future minimum non-cancelable sublease rental income aggregating \$24.7 million.
- (c) Includes information technology, professional, maintenance and other outsourced services.
- (d) Includes estimated pension and other postretirement benefits plan contributions for 2020 and 2021 and does not include the obligations for subsequent periods, as the Company is unable to reasonably estimate the ultimate amounts.
- (e) Other includes commercial agreement and other obligations of \$3.9 million, \$1.9 million of remaining purchase price for the eBrevia acquisition and employee restructuring-related severance payments of \$1.9 million. Excluded from the table are uncertain tax positions related to the income tax benefit as of December 31, 2019. Refer to Note 15, *Income Taxes*.

Debt

During the year ended December 31, 2019, the Company paid in full the remaining balance of the Term Loan Credit Facility of \$72.5 million. As a result of the transaction, the Company recognized a loss on extinguishment of debt of \$4.1 million for the year ended December 31, 2019, related to unamortized debt issuance costs and the original issuance discount, which is included in interest expense in the consolidated statements of operations.

On December 18, 2018, the Company entered into a second amendment to the Credit Agreement which extended the maturity date of the Revolving Facility to December 18, 2023, reduced the interest rate margin percentages and facility fees applicable to the Revolving Facility, increased the allowable annual dividends from \$15.0 million to \$20.0 million in the aggregate and modified the financial maintenance and negative covenants in the Credit Agreement.

The Company's debt maturity schedule as of December 31, 2019 is shown in the table below:

| | Debt Maturity Schedule | | | | | | | | |
|-----------|------------------------|------|------|------|------|----------|------------|--|--|
| | Total | 2020 | 2021 | 2022 | 2023 | 2024 | Thereafter | | |
| Notes (a) | \$ 300.0 | \$ — | \$ | \$ — | \$ | \$ 300.0 | \$ — | | |

(a) Excludes unamortized debt issuance costs of \$4.0 million which do not represent contractual commitments with a fixed amount or maturity date. The Credit Agreement contains a number of covenants, including, but not limited to, a minimum Interest Coverage Ratio and the Consolidated Net Leverage Ratio, as defined in and calculated pursuant to the Credit Agreement, that, in part, restrict the Company's ability to incur additional indebtedness, create liens, engage in mergers and consolidations, make restricted payments and dispose of certain assets. The Credit Agreement generally allows annual dividend payments of up to \$20.0 million in aggregate, though additional dividends may be allowed subject to certain conditions. Each of these covenants is subject to important exceptions and qualifications.

The indenture governing the Notes contains certain covenants applicable to the Company and its restricted subsidiaries, including limitations on: (1) liens; (2) indebtedness; (3) mergers, consolidations and acquisitions; (4) sales, transfers and other dispositions of assets; (5) loans and other investments; (6) dividends and other distributions, stock repurchases and redemptions and other restricted payments; (7) restrictions affecting subsidiaries; (8) transactions with affiliates; and (9) designations of unrestricted subsidiaries. Each of these covenants is subject to important exceptions and qualifications.

As of December 31, 2019, there were no borrowings under the Revolving Facility. Based on the Company's results of operations for the year ended December 31, 2019 and existing debt, the Company would have had the ability to utilize \$231.6 million of the \$300.0 million Revolving Facility and not have been in violation of the terms of the agreement. The current availability under the Revolving Facility and net available liquidity as of December 31, 2019 is shown in the table below:

| | D | ecember 31, 2019 |
|---|----|------------------|
| Availability | | (in millions) |
| Revolving Facility | \$ | 300.0 |
| Availability reduction from covenants | | 68.4 |
| | \$ | 231.6 |
| Usage | | |
| Borrowings under the Revolving Facility | | |
| Impact on availability related to outstanding letters of credit | | _ |
| | \$ | |
| Current availability at December 31, 2019 | \$ | 231.6 |
| Cash | | 17.2 |
| Net Available Liquidity | \$ | 248.8 |

The Company was in compliance with its debt covenants as of December 31, 2019, and expects to remain in compliance based on management's estimates of operating and financial results for 2020 and the foreseeable future. However, declines in market and economic conditions or demand for certain of the Company's services and products could impact the Company's ability to remain in compliance with its debt covenants in future periods. As of December 31, 2019, the Company met all the conditions required to borrow under the Credit Agreement and management expects the Company to continue to meet the applicable borrowing conditions.

The failure of a financial institution supporting the Revolving Facility would reduce the size of the Company's committed facility unless a replacement institution was added. As of December 31, 2019, the Revolving Facility is supported by sixteen U.S. and international financial institutions.

As of December 31, 2019, the Company had \$3.4 million in outstanding letters of credit and bank guarantees, of which none reduced to the availability under the Revolving Facility.

Acquisitions and Dispositions

During the year ended December 31, 2019 and the year ended December 31, 2018, the Company paid \$4.5 million and \$12.5 million, net of cash acquired, respectively, for the acquisition of eBrevia. \$1.9 million of the purchase price related to amounts held in escrow was payable as of December 31, 2019 and is expected to be paid during 2020.

During the year ended December 31, 2018, the Company sold its Language Solutions business for net proceeds of \$77.5 million in cash, all of which was received as of December 31, 2019. The Company used approximately \$60.0 million of net proceeds from the sale to pay down debt under the Term Loan Credit Facility in July 2018 in accordance with the provisions of the Credit Agreement. During the year ended December 31, 2019, the Company paid \$4.0 million related to the disposition of the Language Solutions business.

Off-Balance Sheet Arrangements

The Company has no material off-balance sheet arrangements (as defined in Item 303(a)(4) of Regulation S-K) that have or are reasonably likely to have a current or future effect on the Company's financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

OTHER INFORMATION

Litigation and Contingent Liabilities

For a discussion of certain litigation involving the Company, see Note 13, *Commitments and Contingencies*, to the consolidated financial statements.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with GAAP requires the extensive use of management's estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from these estimates. Estimates are used when accounting for items and matters including, but not limited to, allowance for uncollectible accounts receivable, pension, goodwill, asset valuations and useful lives, income taxes and other provisions and contingencies.

Revenue Recognition

The Company manages highly-customized data and materials, such as the Exchange Act, the Securities Act and the Investment Company Act filings with the SEC on behalf of the Company's customers, manages virtual data rooms and performs XBRL and related services. Clients are provided with EDGAR filing services, XBRL compliance services and translation, editing, interpreting, proof-reading and multilingual typesetting services, among others. The Company's SaaS solutions include the Venue Virtual Data Room, the FundSuiteArc software platform, ActiveDisclosure and data and analytics, and others.

Revenue is recognized upon transfer of control of promised services or products to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those services or products. The Company's arrangements with customers often include promises to transfer multiple services or products to a customer. Determining whether services and products are considered distinct performance obligations that should be accounted for separately requires significant judgment. Certain customer arrangements have multiple performance obligations as certain promises are both capable of being distinct and are distinct within the context of the contract. Other customer arrangements have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts, and therefore are not distinct. Billings for shipping and handling costs as well as certain postage costs and out-of-pocket expenses are recorded gross. The Company expenses the costs to obtain the contract, primarily commissions, as incurred.

For arrangements with multiple performance obligations, the transaction price is allocated to the separate performance obligations. As the Company provides customer specific solutions, observable standalone selling price is rarely available. As such, standalone selling price is more frequently determined using an estimate of the standalone selling price of each distinct service or product, taking into consideration of historical selling price by customer for distinct service or product. These estimates may vary from the final amounts invoiced to the customer and are adjusted upon completion of all performance obligations.

Because substantially all of the Company's products are customized, product returns are not significant; however, the Company accrues for the estimated amount of customer credits at the time of sale. Refer to Note 2, *Significant Accounting Policies*, to the consolidated financial statements for further discussion.

Goodwill

The Company's methodology for allocating the purchase price of acquisitions is based on established valuation techniques that reflect the consideration of several factors, including valuations performed by third-party appraisers when appropriate. Goodwill is measured as the excess of the cost of an acquired entity over the fair value assigned to identifiable assets acquired and liabilities assumed. Goodwill is either assigned to a specific reporting unit or allocated between reporting units based on the relative fair value of each reporting unit. Based on its current organization structure, the Company has identified three reporting units for which cash flows are determinable and to which goodwill may be allocated.

The Company performs its goodwill impairment tests annually as of October 31, or more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company also performs an interim review for indicators of impairment each quarter to assess whether an interim impairment review is required for any reporting unit. As part of its interim reviews, management analyzes potential changes in the value of individual reporting units based on each reporting unit's operating results for the period compared to expected results as of the prior year's annual impairment test. In addition, management considers how other key assumptions, including discount rates and expected long-term growth rates, used in the last annual impairment test, could be impacted by changes in market conditions and economic events. Based on these interim assessments, management concluded that as of the interim periods, no events or changes in circumstances indicated that it was more likely than not that the fair value for any reporting unit had declined below its carrying amount.

As of October 31, 2019, the Capital Markets, Investment Markets and International reporting units each had goodwill. Each of the reporting units were reviewed for impairment using a quantitative assessment.

For each of the reporting units, the estimated fair value of each reporting unit was compared to its carrying amount, including goodwill. If the carrying amount of a reporting unit exceeded the estimated fair value, an impairment loss is generally recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

Quantitative Assessment for Impairment—The analysis performed included estimating the fair value of each reporting unit using both the income and market approaches. The income approach requires management to estimate a number of factors for each reporting unit, including projected future operating results, economic projections, anticipated future cash flows, discount rates and the allocation of shared or corporate items. The market approach estimates fair value using comparable marketplace fair value data from within a comparable industry grouping. The Company weighted both the income and market approach equally to estimate the concluded fair value of each reporting unit.

The determination of fair value in the quantitative assessment requires the Company to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to: the selection of appropriate peer group companies; the discount rate; terminal growth rates; and forecasts of revenue, operating income, depreciation and amortization, restructuring charges and capital expenditures.

As a result of the 2019 annual goodwill impairment test, the Company did not recognize any goodwill impairment as the estimated fair values of all reporting units exceeded their respective carrying amounts.

Goodwill Impairment Assumptions—Although the Company believes its estimates of fair value are reasonable, actual financial results could differ from those estimates due to the inherent uncertainty involved in making such estimates. Changes in assumptions concerning future financial results or other underlying assumptions could have a significant impact on either the fair value of the reporting units, the amount of the goodwill impairment charge, or both.

One measure of the sensitivity of the amount of goodwill impairment charges to key assumptions is the amount by which each reporting unit "passed" (fair value exceeds carrying amount, a "cushion") or "failed" (the carrying amount exceeds fair value) the quantitative assessment. In 2019, the Capital Markets and International reporting units had fair values far in excess of carrying value; however, the Investment Markets reporting unit's fair value exceeded its book value by approximately 10%. The decline in the fair value of the Investment Markets reporting unit was primarily driven by unfavorable regulatory developments and a reduction in projected sales volumes for certain services and products. As of December 31, 2019, goodwill allocated to the Investment Markets reporting unit was \$90.5 million.

Generally, changes in estimates of expected future cash flows would have a similar effect on the estimated fair value of the reporting unit. That is, a 1.0% decrease in estimated annual future cash flows would decrease the estimated fair value of the reporting unit by approximately 1.0%. The estimated long-term net sales growth rate can have a significant impact on the estimated future cash flows, and therefore, the fair value of each reporting unit. Holding all other assumptions constant, a 1.0% decrease in the long-term net sales growth rate would not have resulted in an impairment loss for any of the Company's reporting units. Of the other key assumptions that impact the estimated fair values, most reporting units have the greatest sensitivity to changes in the estimated discount rate. The discount rate for the Investment Markets reporting unit was 11.5% as of October 31, 2019. Assuming the income and market approach are averaged to estimate the fair value of the reporting unit, a 1% increase in the estimated discount rate for the Investment Markets reporting unit would result in a cushion of approximately 4%. A 1.0% increase in estimated discount rate would not have resulted in an impairment loss for the Capital Markets or International reporting units. The Company believes that its estimates of future cash flows and discount rates are reasonable, but future changes in the underlying assumptions could differ due to the inherent uncertainty in making such estimates. Additionally, further price deterioration, lower volumes, additional unfavorable regulatory developments or lower than expected profitability of software products still in development could have a significant impact on the fair values of the reporting units.

Other Long-Lived Assets

The Company evaluates the recoverability of other long-lived assets, including right-of-use assets, property, plant and equipment, and definite-lived intangible assets, whenever events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable. The Company assesses its asset groups for indicators of impairment on a recurring basis. Factors which could trigger an impairment review include significant underperformance relative to historical or projected future operating results, significant changes in the manner of use of the assets or the strategy for the overall business, a significant decrease in the market value of the assets or significant negative industry or economic trends. When the Company determines that the carrying value of one of its asset groups may not be recoverable based upon the existence of one or more of the indicators, the assets are assessed for impairment based on the estimated future undiscounted cash flows expected to result from the use of the asset group and its eventual disposition. If the carrying value of an asset group exceeds its estimated future undiscounted cash flows, an impairment loss is recorded for the excess of the asset group's carrying value over its fair value. During the year ended December 31, 2019, the Company recognized impairment charges of \$1.0 million related to customer relationship intangible assets in the Company's European operations and \$0.4 million related to software assets.

Pension and Other Postretirement Benefits Plans

Subsequent to the Separation, certain pension plan liabilities and assets were transferred from RRD to the Company upon the legal split of those plans.

The Company's primary defined benefit plan is frozen. No new employees are permitted to enter the Company's frozen plan and participants will earn no additional benefits. Benefits are generally based upon years of service and compensation. These defined benefit retirement income plans are funded in conformity with the applicable government regulations. The Company funds at least the minimum amount required for all funded plans using actuarial cost methods and assumptions acceptable under government regulations.

The annual income and expense amounts relating to the pension plan are based on calculations which include various actuarial assumptions including mortality expectations, discount rates and expected long-term rates of return. The Company reviews its actuarial assumptions on an annual basis as of December 31 (or more frequently if a significant event requiring remeasurement occurs) and modifies the assumptions based on current rates and trends when it is appropriate to do so. The effects of modifications are recognized immediately on the consolidated balance sheets, but are amortized into operating earnings over future periods, with the deferred amount recorded in accumulated other comprehensive income (loss). The Company believes that the assumptions utilized in recording its obligations under its plans are reasonable based on its experience, market conditions and input from its actuaries and investment advisors. The weighted-average discount rate for pension benefits at December 31, 2019 was 3.2%.

In September 2019, the Company communicated to certain pension plan participants the option to receive a lump-sum pension payment. Payments to certain participants who elected to receive a lump-sum pension payment were funded from existing pension plan assets and constituted a complete settlement of pension liabilities with respect to these participants. As a result, pension assets and plan liabilities were remeasured during the fourth quarter of 2019, resulting in an actuarial loss of \$6.4 million recorded within accumulated other comprehensive loss and a \$3.9 million non-cash pension settlement charge recorded within net investment and other income during the fourth quarter of 2019.

A one-percentage point change in the discount rates at December 31, 2019 would have the following effects on the accumulated benefit obligation and projected benefit obligation:

| | 1.0% | 1.0% | | |
|--------------------------------|--------------|-----------|----------|-----|
| | Increase | | Decrease | |
| | (in | millions) | | |
| Accumulated benefit obligation | \$ (34.7) | \$ | 42 | 2.2 |
| Projected benefit obligation | \$ (34.7) | \$ | 42 | 2.2 |

The Company's defined benefit plan has a risk management approach for its pension plan assets. The overall investment objective of this approach is to further reduce the risk of significant decreases in the plan's funded status by allocating a larger portion of the plan's assets to investments expected to hedge the impact of interest rate risks on the plan's obligation.

The expected long-term rate of return for the plan assets is based upon many factors including expected asset allocations, historical asset returns, current and expected future market conditions and risk. In addition, the Company considered the impact of the current interest rate environment on the expected long-term rate of return for certain asset classes, particularly fixed income. The target asset allocation percentage for the pension plan was approximately 50.0% for return seeking investments and approximately 50.0% for fixed income investments. The expected long-term rate of return on plan assets assumption used to calculate net pension plan expense in 2019 was 6.3% for the Company's pension plans. The expected long-term rate of return on plan assets assumption that will be used to calculate net pension plan expense in 2020 is 6.0%.

A 0.25% change in the expected long-term rate of return on plan assets at December 31, 2019 would have the following effects on 2019 and 2020 pension plan (income)/expense:

| | 2019 | 2020 |
|----------------|----------|------------|
| | (in | millions) |
| 0.25% increase | \$ (0.6) |) \$ (0.6) |
| 0.25% decrease | 0.6 | 0.6 |

Accounting for Income Taxes

In the Company's consolidated financial statements, income tax expense and deferred tax balances have been calculated on a separate income tax return basis.

Significant judgment is required in determining the provision for income taxes and related accruals, deferred tax assets and liabilities and any valuation allowance recorded against deferred tax assets. In the ordinary course of business, there are transactions and calculations where the ultimate tax outcome is uncertain. Additionally, the Company's tax returns are subject to audit by various U.S. and foreign tax authorities. The Company recognizes a tax position in its financial statements when it is more likely than not (*i.e.*, a likelihood of more than fifty percent) that the position would be sustained upon examination by tax authorities. This recognized tax position is then measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Although management believes that its estimates are reasonable, the final outcome of uncertain tax positions may be materially different from that which is reflected in the Company's historical financial statements.

The Company has recorded deferred tax assets related to future deductible items, including domestic and foreign tax loss and credit carryforwards. The Company evaluates these deferred tax assets by tax jurisdiction. The utilization of these tax assets is limited by the amount of taxable income expected to be generated within the allowable carryforward period and other factors. Accordingly, management has provided a valuation allowance to reduce certain of these deferred tax assets when management has concluded that, based on the weight of available evidence, it is more likely than not that the deferred tax assets will not be fully realized. If actual results differ from these estimates, or the estimates are adjusted in future periods, adjustments to the valuation allowance might need to be recorded. As of December 31, 2019, and December 31, 2018, valuation allowances of \$5.2 million and \$2.1 million, respectively, were recorded in the Company's consolidated balance sheets.

Refer to Note 15, *Income Taxes*, to the consolidated financial statements for further detail on the accounting for income taxes.

Accounts Receivable

The Company maintains an allowance for doubtful accounts receivable to account for estimated losses resulting from the inability of its customers to make required payments for services and products. Specific customer provisions are made when a review of significant outstanding amounts, utilizing information about customer creditworthiness and current economic trends, indicates that collection is doubtful. In addition, provisions are made at differing rates, based upon the age of the receivable and the Company's past collection experience. The allowance for doubtful accounts receivable was \$7.7 million at December 31, 2019 and \$7.9 million at December 31, 2018. The Company also maintains a reserve for potential credit memos and disputed items. The credit memo and disputed items reserve is based on historical credit memos relative to billings as well as specific customer reserves and was \$4.8 million at December 31, 2019 and \$4.7 million at December 31, 2018. The Company's estimates of the recoverability of accounts receivable could change, and additional changes to the allowance could be necessary in the future, if any major customer's creditworthiness deteriorates or actual defaults are higher than the Company's historical experience.

New Accounting Pronouncements and Pending Accounting Standards

Recently issued accounting standards and their estimated effect on the Company's consolidated financial statements are described in Note 2, *Significant Accounting Policies*, to the consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk

The Company is exposed to potential fluctuations in earnings, cash flows, and the fair value of certain assets and liabilities due to changes in interest rates and foreign currency exchange rates. The Company manages exposure to these market risks through regular operating and financial activities and, when deemed appropriate, through the use of derivative financial instruments for risk management purposes. As a result, the Company does not anticipate any material losses from these risks. The Company was not a party to any derivative financial instrument at December 31, 2019 or 2018.

The Company discusses risk management in various places throughout this document, including discussions concerning liquidity and capital resources.

Foreign Exchange Risk

While the substantial majority of the Company's business is conducted within the U.S., approximately 13% of the Company's net sales in 2019 were earned outside of the U.S. The Company has operations internationally that are denominated in foreign currencies, primarily the British Pound and Canadian dollar, exposing the Company to foreign currency exchange risk which may adversely impact financial results. The exposure to foreign currency movements is limited in many countries because the operating revenues and expenses of the Company's various subsidiaries and business units are substantially in the local currency of the country in which they operate. To the extent that borrowings, sales, purchases, revenues, expenses or other transactions are not in the local currency of the subsidiary, the Company is exposed to currency risk and may enter into foreign exchange spot and forward contracts to hedge the currency risk. The Company does not use derivative financial instruments for trading or speculative purposes.

For the year ended December 31, 2019, a hypothetical 10% strengthening of the U.S. dollar relative to multiple currencies would not have a material effect on the Company's earnings before income taxes. A hypothetical 10% strengthening of the U.S. dollar relative to multiple currencies at December 31, 2019 would have resulted in a decrease in total assets of approximately \$7.4 million.

Interest Rate Risk

The Company assesses market risk based on changes in interest rates utilizing a sensitivity analysis that measures the potential loss in earnings, fair values and cash flows based on a hypothetical 10% change in interest rates. Using this sensitivity analysis, such changes would not have a material effect on interest income or expense and cash flows.

A hypothetical 10% change in yield would change the fair values of the Notes at December 31, 2019 by approximately \$9.0 million, or 3.0%.

Credit Risk

The Company is exposed to credit risk on accounts receivable balances. This risk is mitigated due to the Company's large, diverse customer base, dispersed over various geographic regions and industrial sectors. No single customer comprised more than 10% of the Company's net sales in the years ended December 31, 2019, 2018 or 2017. The Company maintains provisions for potential credit losses and such losses to date have normally been within the Company's expectations. The Company evaluates the solvency of its customers on an ongoing basis to determine if additional allowances for doubtful accounts receivable need to be recorded. Significant economic disruptions or a slowdown in the economy could result in significant additional charges.

Commodities

The primary raw materials used by the Company are paper and ink. To reduce price risk caused by market fluctuations, the Company has incorporated price adjustment clauses in certain sales contracts. Management believes a hypothetical 10% change in the price of paper and other raw materials would not have a significant effect on the Company's annual results of operations or cash flows as some of these costs are generally passed through to its customers. However, such an increase could have an impact on the Company's customers' demand for printed products, and the Company is not able to quantify the impact of such potential change in demand on the Company's annual results of operations or cash flows.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial information required by Item 8 is located beginning on page F-1 of this report.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) Disclosure controls and procedures.

Management, together with the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(b) and Rule 15d-15(e) of the Securities Exchange Act of 1934) as of December 31, 2019. Based on that evaluation the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of December 31, 2019.

(b) Changes in internal control over financial reporting.

Changes in Internal Control Over Financial Reporting. There were no changes in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2019 that have materially affected or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting. Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2019 based on the guidelines established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on the results of our evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2019.

Deloitte & Touche LLP, an independent registered public accounting firm, who audited the consolidated financial statements of the Company included in this Annual Report on Form 10-K, has also audited the effectiveness of the Company's internal control over financial reporting as stated in its report appearing below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Donnelley Financial Solutions, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Donnelley Financial Solutions, Inc. and subsidiaries (the "Company") as of December 31, 2019, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Company and our report dated February 26, 2020, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's adoption of FASB ASC Topic 842, Leases.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois February 26, 2020

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF DONNELLEY FINANCIAL SOLUTIONS, INC. AND CORPORATE GOVERNANCE

Information regarding directors and executive officers of the Company is incorporated herein by reference to the descriptions under "Proposal 1: Election of Directors," "The Board's Committees and their Functions" and "Section 16(a) Beneficial Ownership Reporting Compliance" of the Company's Proxy Statement for the Annual Meeting of Shareholders scheduled to be held May 18, 2020 (the "2020 Proxy Statement").

The Company has adopted a policy statement entitled *Code of Ethics* that applies to its chief executive officer and senior financial officers. In the event that an amendment to, or a waiver from, a provision of the *Code of Ethics* is made or granted, the Company intends to post such information on its web site, *www.dfsco.com*. A copy of the Company's *Code of Ethics* has been filed as Exhibit 14.1 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

EXECUTIVE OFFICERS OF DONNELLEY FINANCIAL SOLUTIONS, INC.

| Name, Age and Position with the Company | Officer Since | Business Experience |
|--|------------------|--|
| Daniel N. Leib 53, Chief Executive Officer | 2016 | Served as RRD's Executive Vice President and Chief Financial Officer from May 2011 to October 2016. Prior to this, served as RRD's Group Chief Financial Officer and Senior Vice President, Mergers and Acquisitions since August 2009 and Treasurer from June 2008 to February 2010. Prior to this, served as RRD's Senior Vice President, Treasurer, Mergers and Acquisitions and Investor Relations since July 2007. Prior to this, from May 2004 to 2007, served in various capacities in financial management, corporate strategy and investor relations. |
| Thomas F. Juhase 59, Chief Operating Officer | 2016 | Served as RRD's President, Financial, Global Outsourcing and Document Solutions from 2010 to October 2016. He served as RRD's President, Financial and Global Outsourcing from 2007 to 2010, as President, Global Capital Market, Financial Print Solutions from 2004 to 2007. From 1991 to 2004, Mr. Juhase served in various capacities with RRD in sales and operations in the U.S. and internationally. |
| David A. Gardella 50, Chief Financial Officer | 2016 | Served as RRD's Senior Vice President, Investor Relations & Mergers and Acquisitions from 2011 to October 2016. He served as RRD's Vice President, Investor Relations from 2009 to 2011 and as Vice President, Corporate Finance from 2008 to 2009. From 1992 to 2004 and then from 2005 to 2008, Mr. Gardella served in various capacities in financial management and financial planning & analysis. |
| Jennifer B. Reiners 53, General Counsel | 2016 | Served as RRD's Senior Vice President, Deputy General Counsel from 2008 to October 2016 and as Vice President, Deputy General Counsel from 2005 to 2008. Prior to this, served in various capacities in the legal department from 1997 to 2008. |
| Kami S. Turner 45, Controller and Chief Accounting Officer | 2016 | Served as RRD's Assistant Controller from December 2012 to October 2016. Prior to this, served as Vice President, External Reporting in 2012 and from 2009 to 2011 served in various capacities in finance at RRD. |

ITEM 11. EXECUTIVE COMPENSATION

Information regarding executive and director compensation is incorporated by reference to the material under the captions "Compensation Discussion and Analysis," "Human Resources Committee Report," "Executive Compensation," "Potential Payments Upon Termination or Change in Control," and "Director Compensation" of the 2020 Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information regarding security ownership of certain beneficial owners and management is incorporated herein by reference to the material under the heading "Stock Ownership" of the 2020 Proxy Statement.

Equity Compensation Plan Information

Information as of December 31, 2019 concerning compensation plans under which DFIN's equity securities are authorized for issuance was as follows:

Equity Compensation Plan Information

| | Number of | | Number of Securities |
|--|------------------|----------------|-----------------------|
| | Securities to Be | *** * 1.4 1 | Remaining Available |
| | Issued upon | Weighted- | for Future Issuance |
| | Exercise of | Average | under Equity |
| | Outstanding | Exercise Price | Compensation Plans |
| | Options, | of | (c) |
| | Restricted Stock | Outstanding | (Excluding Securities |
| | Units, Warrants | Options, | Reflected in Column |
| | and Rights | Warrants and | (1)) |
| | (in thousands) | Rights (b) | (in thousands) |
| <u>Plan Category</u> | (1) | (2) | (3) |
| Equity compensation plans approved by security holders (a) | 2,203 | \$ 19.83 | 3,274 |

⁽a) Excludes 69,000 of performance-based restricted stock ("PBRS") awards as these awards are already issued under the Donnelley Financial Solutions Performance Incentive Plan as common stock.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information regarding certain relationships and related transactions and director independence is incorporated herein by reference to the material under the heading "Certain Transactions," "The Board's Committees and Their Functions" and "Corporate Governance—Independence of Directors" of the 2020 Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information regarding principal accounting fees and services is incorporated herein by reference to the material under the heading "The Company's Independent Registered Public Accounting Firm" of the 2020 Proxy Statement.

⁽b) Restricted stock units and PBRS awards were excluded when determining the weighted-average exercise price of outstanding options, warrants and rights.

⁽c) All of these shares are available for issuance under the Donnelley Financial Solutions Performance Incentive Plan. The Donnelley Financial Solutions Performance Incentive Plan allows grants in the form of cash or bonus awards, stock options, stock appreciation rights, restricted stock, stock units or combinations thereof. The maximum number of shares of common stock that may be granted with respect to bonus awards, including performance awards or fixed awards in the form of restricted stock or other form, is 6,920,000 in the aggregate, of which 3,274,243 remain available for issuance.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) 1. Financial Statements

The financial statements listed in the accompanying index (page F-1) to the financial statements are filed as part of this Annual Report on Form 10-K.

(b) Exhibits

The exhibits listed on the accompanying index (pages E-1 through E-4) are filed as part of this Annual Report on Form 10-K.

(c) Financial Statement Schedules omitted

Certain schedules have been omitted because the required information is included in the consolidated financial statements and notes thereto or because they are not applicable or not required.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

ITEM 15(a). INDEX TO FINANCIAL STATEMENTS

| _ | Page |
|---|------|
| Consolidated Statements of Operations for each of the three years in the period ended December 31, 2019 | F-2 |
| Consolidated Statements of Comprehensive Income for each of the three years in the period ended | |
| December 31, 2019 | F-3 |
| Consolidated Balance Sheets as of December 31, 2019 and 2018 | F-4 |
| Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2019 | F-5 |
| Consolidated Statements of Equity for each of the three years in the period ended December 31, 2019 | F-6 |
| Notes to Consolidated Financial Statements | F-7 |
| Report of Independent Registered Public Accounting Firm | F-48 |
| Unaudited Interim Financial Information | F-49 |

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN") Consolidated Statements of Operations (in millions, except per share data)

| | Year Ended December 31, | | | | | |
|---|-------------------------|--------|------|--------|----|---------|
| | 2019 | | 2018 | | | 2017 |
| Services net sales | \$ | 554.0 | \$ | 618.0 | \$ | 632.1 |
| Products net sales | | 320.7 | | 345.0 | | 372.8 |
| Total net sales | | 874.7 | | 963.0 | | 1,004.9 |
| Services cost of sales (exclusive of depreciation and amortization) | | 284.8 | | 328.8 | | 328.7 |
| Services cost of sales with R.R. Donnelley affiliates (exclusive of depreciation and amortization)* | | _ | | | | 19.5 |
| Products cost of sales (exclusive of depreciation and amortization) | | 257.6 | | 258.5 | | 240.9 |
| Products cost of sales with R.R. Donnelley affiliates (exclusive of | | | | 200.0 | | 32.3 |
| depreciation and amortization)* | | | | 597.2 | | |
| Total cost of sales | | 542.4 | | 587.3 | | 621.4 |
| Selling, general and administrative expenses (exclusive of depreciation and amortization) | | 205.8 | | 258.2 | | 236.2 |
| Restructuring, impairment and other charges-net (Note 5) | | 13.6 | | 4.4 | | 7.1 |
| Depreciation and amortization. | | 49.6 | | 45.8 | | 44.5 |
| Other operating income | | (15.2) | | (53.8) | | |
| Income from operations | | 78.5 | | 121.1 | | 95.7 |
| Interest expense-net (Note 16) | | 38.1 | | 36.7 | | 42.9 |
| Investment and other income-net | | (11.7) | | (18.3) | | (3.4) |
| Earnings before income taxes | | 52.1 | | 102.7 | | 56.2 |
| Income tax expense | | 14.5 | | 29.1 | | 46.5 |
| Net earnings | | 37.6 | \$ | 73.6 | \$ | 9.7 |
| Net earnings per share: | | | | | | |
| Basic | \$ | 1.10 | \$ | 2.18 | \$ | 0.29 |
| Diluted | \$ | 1.10 | \$ | 2.16 | \$ | 0.29 |
| Weighted average number of common shares outstanding: | | | | | | |
| Basic | | 34.1 | | 33.8 | | 33.1 |
| Diluted | | 34.3 | | 34.0 | | 33.3 |
| | | | | | | |

^{*} Beginning in the quarter ended June 30, 2017, LSC Communications, Inc. ("LSC") no longer qualified as a related party, therefore the amounts disclosed related to LSC are presented through March 31, 2017 only. Beginning in the quarter ended September 30, 2017, R.R. Donnelley & Sons Company ("RRD") no longer qualified as a related party, therefore the amounts disclosed related to RRD are presented through June 30, 2017 only.

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN") Consolidated Statements of Comprehensive Income (in millions of dollars)

| | Year Ended December 31, | | | | | 31, |
|---|-------------------------|-------|----|-------|----|-------|
| | | 2019 | | 2018 | | 2017 |
| Net earnings | \$ | 37.6 | \$ | 73.6 | \$ | 9.7 |
| Other comprehensive income (loss), net of tax: | | | | | | |
| Translation adjustments | | 3.0 | | (5.0) | | 4.4 |
| Adjustment for net periodic pension and other postretirement benefits plan cost | | (4.9) |) | (2.2) | | (0.7) |
| Other comprehensive (loss) income, net of tax | | (1.9) | _ | (7.2) | | 3.7 |
| Comprehensive income | \$ | 35.7 | \$ | 66.4 | \$ | 13.4 |

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN") Consolidated Balance Sheets (in millions, except per share data)

| | December 31, | | | 1, |
|---|--------------|--------|----------|--------|
| | | 2019 | | 2018 |
| ASSETS | | | | |
| Cash and cash equivalents | | 17.2 | \$ | 47.3 |
| Receivables, less allowances for doubtful accounts of \$7.7 in 2019 (2018 - \$7.9) | | 161.4 | | 172.9 |
| Inventories | | 11.1 | | 12.1 |
| Prepaid expenses and other current assets | | 15.9 | | 16.7 |
| Assets held for sale | | 5.6 | | |
| Total current assets | | 211.2 | | 249.0 |
| Property, plant and equipment-net | | 17.5 | | 32.2 |
| Right-of-use assets | | 80.7 | | |
| Software-net | | 55.0 | | 47.8 |
| Goodwill | | 450.3 | | 450.0 |
| Other intangible assets-net | | 21.9 | | 37.2 |
| Deferred income taxes | | 9.0 | | 9.7 |
| Other noncurrent assets | | 41.3 | | 42.8 |
| Total assets | . \$ | 886.9 | \$ | 868.7 |
| LIABILITIES | | | | |
| Accounts payable | . \$ | 58.5 | \$ | 72.4 |
| Accrued liabilities. | | 121.0 | - | 126.0 |
| Total current liabilities | | 179.5 | | 198.4 |
| Long-term debt (Note 16). | | 296.0 | | 362.7 |
| Deferred compensation liabilities | | 20.0 | | 19.5 |
| Pension and other postretirement benefits plan liabilities | | 58.8 | | 51.3 |
| Noncurrent lease liabilities | | 57.9 | | _ |
| Other noncurrent liabilities. | | 6.1 | | 10.8 |
| Total liabilities | | 618.3 | | 642.7 |
| Commitments and Contingencies (Note 13) | | | | |
| EQUITY | | | | |
| Preferred stock, \$0.01 par value | | | | |
| Authorized: 1.0 shares; Issued: None | | _ | | |
| Common stock, \$0.01 par value | | | | |
| Authorized: 65.0 shares; | | | | |
| Issued and Outstanding: 34.5 shares and 34.2 shares in 2019 (2018 - 34.2 shares and | | | | |
| 34.1 shares) | | 0.3 | | 0.3 |
| Treasury stock, at cost: 0.3 shares in 2019 (2018 - 0.1 shares) | | (4.2) | | (2.4) |
| Additional paid-in-capital. | | 225.2 | | 216.5 |
| Retained earnings | | 131.9 | | 94.3 |
| Accumulated other comprehensive loss | | (84.6) | | (82.7) |
| Total equity | | 268.6 | | 226.0 |
| Total liabilities and equity | | 886.9 | \$ | 868.7 |
| | <u> </u> | | <u> </u> | |

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN") Consolidated Statements of Cash Flows (in millions of dollars)

| OPERATION CONTINIES Earnings. 5 and 5 seriors 5 and 5 seri | | Year Ended December 31, | | | | | |
|--|--|-------------------------|--------|----|--------|----|--------|
| Net caranings \$ 37.6 \$ 73.6 \$ 9.7 | | | 2019 | | 2018 | | 2017 |
| Adjustments to reconcile net earnings to net cash provided by operating activities: 49.6 45.8 44.5 Provision for doubtful accounts receivable. 3.2 4.9 3.9 Impairment charges. 3.0 - - Share-based compensation. 8.8 9.2 6.8 Loss on debt extinguishment. 4.1 - - Deferred income taxes. 2.5 10.5 12.4 Net pension plan expense (income) 1.8 3.2 3.3 Gain on equity investments. (19.2) - - Net gain on slac of building. (19.2) - - Net loss (apin) on disposition of Language Solutions business. 4.0 (5.3) - Amortization of right-of-use assets. 2.2 1.0 - Other. 8.7 (25.3) 1.8 Inventories. 8.7 (25.3) 1.8 Inventories. 9.1 1.0 (1.0 1.0 1.0 Inventories. 9.1 1.0 (2.1) 1.0 1.0 1.2 <th>OPERATING ACTIVITIES</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> | OPERATING ACTIVITIES | | | | | | |
| Pepreciation and amortization | <u>v</u> | \$ | 37.6 | \$ | 73.6 | \$ | 9.7 |
| Provision for doubtful accounts receivable. 32 49 39 Impairment charges. 3.0 — — Share-based compensation 8.9 9.2 6.8 Loss on debt extinguishment. 4.1 — — Deferred income taxes 2.5 10.5 12.4 Net pension plan expense (income) 1.8 3.2 (3.3) Gain on equity investments (103.6) (13.6) — Net loss (gain) on disposition of Language Solutions business 4.0 (53.8) — Net loss (gain) on disposition of Language Solutions business 4.0 (53.8) — Amortization of right-of-use assets 2.21 — — Orber 8.7 (25.3) 18.0 Langes in operating assets and liabilities - net of acquisitions: 8.7 (25.3) 18.0 Longes in operating assets and liabilities - net of acquisitions 8.7 (25.3) 18.0 Inventiories 1.0 (1.0 1.0 0.8 Propaid expenses and other current assets 2.6 1.2 | | | | | | | |
| Impairment charges | | | | | | | |
| Share-based compensation | Provision for doubtful accounts receivable | | | | 4.9 | | 3.9 |
| Deferred income taxes | 1 6 | | | | _ | | _ |
| Deferred income taxes. | * | | 8.9 | | 9.2 | | 6.8 |
| Net pension plan expense (income) | | | 4.1 | | _ | | _ |
| Gain on equity investments (13.6) (13.6) — Net gain on sale of building (19.2) — — Net loss (gain) on disposition of Language Solutions business 4.0 (33.8) — Other 3.1 23 2.8 Changes in operating assets and liabilities - net of acquisitions: 8.7 (25.3) 18.0 Inventories 1.0 (1.6) 0.8 Prepaid expenses and other current assets 2.6 1.2 (3.5) Accounts payable (13.6) 10.7 (18.3) Income taxes payable and receivable (13.0) 10.7 (18.3) Income taxes payable and receivable (13.0) 9.2 5.4 Accounts payable and receivable (13.0) (1.7) 14.4 Lease liabilities and other (13.0) (1.7) 14.5 Accounts payable and receivable (13.0) (1.7) 14.4 Lease liabilities and other (13.0) (1.9) (2.2 Net cash provided by operating activities (1.0) (1.9) (2.2 <t< td=""><td>Deferred income taxes</td><td></td><td>2.5</td><td></td><td>10.5</td><td></td><td>12.4</td></t<> | Deferred income taxes | | 2.5 | | 10.5 | | 12.4 |
| Net gain on sale of building (192) — — Net loss (gain) on disposition of Language Solutions business 4.0 (53.8) — Amortization of right-of-use assets 22.1 — — Changes in operating assets and liabilities - net of acquisitions: — 8.7 (25.3) 18.0 Inventories 1.0 (10.6) 0.8 Prepaid expenses and other current assets 2.6 1.2 (35.5) Accounts payable (13.0) 9.2 5.4 Accrued liabilities and other (13.5) (1.7) 14.4 Lease liabilities (23.8) — — Pension and other postreirement benefits plan contributions (10.9) (10.9) (22.2) Net ash provided by operating activities 54.5 66.3 91.4 INVESTING ACTIVITIES (44.8) (37.1) (27.8) Proceeds from sale of building. 30.6 — — Acquisition of business, net of cash acquired (45.5) (12.5) — Purchase of investment. 12.8 3.1 <td>Net pension plan expense (income)</td> <td></td> <td>1.8</td> <td></td> <td>(3.2)</td> <td></td> <td>(3.3)</td> | Net pension plan expense (income) | | 1.8 | | (3.2) | | (3.3) |
| Net Diss (gain) on disposition of Language Solutions business 22.1 2.1 2.8 | Gain on equity investments | | (13.6) | | (13.6) | | _ |
| Amortization of right-of-use assets. 22.1 — — Other. 3.1 2.3 2.8 Changes in operating assets and liabilities - net of acquisitions: 8.7 (25.3) 18.0 Accounts receivable – net 8.7 (25.3) 18.0 Inventories. 1.0 (16.0) 0.8 Prepaid expenses and other current assets. 2.6 1.2 (3.5) Accounts payable. (13.0) 9.2 5.4 Income taxes payable and receivable (13.5) (1.7) 14.4 Lease liabilities and other (13.5) (1.7) 14.4 Lease liabilities and other postreitrement benefits plan contributions (10.0) (1.9) (2.2) Net cash provided by operating activities 3.5 66.3 91.4 INVESTING ACTIVITIES 30.6 — — Optical expenditures (44.8) (3.7) (27.8) Proceeds from sale of building. (44.8) (3.1) — Acquisition of business, net of cash acquired (4.5) (12.5) — <t< td=""><td>Net gain on sale of building</td><td></td><td>(19.2)</td><td></td><td>_</td><td></td><td>_</td></t<> | Net gain on sale of building | | (19.2) | | _ | | _ |
| Other. 3.1 2.3 2.8 Changes in operating assets and liabilities - net of acquisitions: Accounts receivable – net 8.7 (25.3) 18.0 Inventories. 1.0 (1.6) 0.8 Prepaid expenses and other current assets. 2.6 1.2 3.5 Accounts payable and receivable (13.6) 10.7 (18.3) Income taxes payable and receivable (13.5) (1.7) 14.4 Lease liabilities and other (23.8) — — Pension and other postretirement benefits plan contributions (10.0) (1.9) (2.2 Net cash provided by operating activities 34.5 66.3 91.4 INVESTING ACTIVITIES 44.8 (37.1) (27.8) Proceeds from sale of building 30.6 — — Acquisition of business, net of cash acquired (44.8) (37.1) (27.8) Purchase of investment 12.2 3.3 — Claying tax particles of proceeds from disposition of Language Solutions business 4.0 77.5 — Purchase of investment </td <td>Net loss (gain) on disposition of Language Solutions business</td> <td></td> <td>4.0</td> <td></td> <td>(53.8)</td> <td></td> <td>_</td> | Net loss (gain) on disposition of Language Solutions business | | 4.0 | | (53.8) | | _ |
| Changes in operating assets and liabilities - net of acquisitions: Accounts receivable - net | Amortization of right-of-use assets | | 22.1 | | _ | | _ |
| Accounts receivable - net 8.7 (25.3) 18.0 Inventories 1.0 (1.6) 0.8 Prepaid expenses and other current assets. 2.6 1.2 (3.5) Accounts payable (13.6) 10.7 (18.3) Income taxes payable and receivable (13.6) 10.7 14.4 Lease liabilities and other (13.5) (1.7) 14.4 Lease liabilities and other postretirement benefits plan contributions (10.0) (1.9) (2.2) Net cash provided by operating activities 54.5 66.3 91.4 INVESTING ACTIVITES 8.6 66.3 91.4 INVESTING ACTIVITIES 4.4 (4.8) (3.7) (2.8) Proceeds from sale of building 30.6 — — Acquisition of business, net of eash acquired (4.9) (12.5) — Proceeds from sale of investment. (2.2) 3.0 — Purchase of investment. (2.8) 3.1 — Proceeds from sale of investment. (2.8) 3.1 — | Other | | 3.1 | | 2.3 | | 2.8 |
| Inventories | Changes in operating assets and liabilities - net of acquisitions: | | | | | | |
| Prepaid expenses and other current assets. 2.6 1.2 (3.5) Accounts payable. (13.6) 10.7 (18.3) Income taxes payable and receivable. (13.0) 9.2 5.4 Accrued liabilities and other (13.5) (1.7) 14.4 Lease liabilities (23.8) — — Pension and other postretirement benefits plan contributions. (10.0) (1.9) (2.2) Net cash provided by operating activities 34.5 66.3 91.4 INVESTING ACTIVITIES 44.8 (37.1) (27.8) Proceeds from sale of building 30.6 — — Acquisition of business, net of cash acquired (4.5) (12.5) — Purchase of investment 2.2.8 3.1 — Purchase of investment 12.8 3.1 — Payments for) proceeds from disposition of Language Solutions business 4.0 77.5 — Other investing activities 21.8 3.1 — Payments on in revolving facility borrowings 515.5 360.0 298.5< | Accounts receivable – net | | 8.7 | | (25.3) | | 18.0 |
| Accounts payable (13.6) 10.7 (18.3) Income taxes payable and receivable (13.0) 9.2 5.4 Accrued liabilities and other (13.5) (1.7) 14.4 Lease liabilities (23.8) — — Pension and other postretirement benefits plan contributions (1.0) (1.9) (2.2) Net cash provided by operating activities 54.5 66.3 91.4 INVESTING ACTIVITIES 44.8 (37.1) (27.8) Proceeds from sale of building 30.6 — — Acquisition of business, net of cash acquired (4.5) (12.5) — Proceeds from sale of building 30.6 — — Proceeds from disposition of Language Solutions business (4.0) 77.5 — Proceeds from disposition of Language Solutions business (4.0) 77.5 — Other investing activities 12.8 3.1 2.8 3.1 2.8 3.1 2.8 5.1 3.0 2.8 5. 2.0 1.0 | Inventories | | 1.0 | | (1.6) | | 0.8 |
| Commet taxes payable and receivable Comment taxes payable Comment taxes payable and receivable Comment taxes payable and receiv | Prepaid expenses and other current assets | | 2.6 | | 1.2 | | (3.5) |
| Commet taxes payable and receivable Comment taxes payable Comment taxes payable and receivable Comment taxes payable and receiv | Accounts payable | | (13.6) | | 10.7 | | (18.3) |
| Accrued liabilities and other (13.5) (1.7) 14.4 Lease liabilities (2.8) — — Pension and other postretirement benefits plan contributions (1.0) (1.9) (2.2) Net cash provided by operating activities 54.5 66.3 91.4 INVESTING ACTIVITIES Total expenditures (44.8) (37.1) (27.8) Proceeds from sale of building 30.6 — — Acquisition of business, net of cash acquired (4.5) (12.5) — Proceeds from sale of investment (2.3) — (3.4) Proceeds from sale of investments for) proceeds from disposition of Language Solutions business (40) 77.5 — Proceeds from sale of investment for proceeds from disposition of Language Solutions business (40) 77.5 — Other investing activities 12.8 3.1 — Proceeds from disposition of Language Solutions business (40) 77.5 — Other investing activities 515.5 360.0 28.5 Revolving facility borrowings 515.5 360.0 | | | (13.0) | | 9.2 | | |
| Lease liabilities (23.8) — — Pension and other postretirement benefits plan contributions. (1.0) (1.9) (2.2) Net cash provided by operating activities 54.5 66.3 91.4 INVESTING ACTIVITIES Total part of the standard of the stan | | | , , | | (1.7) | | 14.4 |
| Pension and other postretirement benefits plan contributions (1.0) (1.9) (2.2) Net cash provided by operating activities 54.5 66.3 91.4 INVESTING ACTIVITIES Texastrate and the separation of the proceeds from sale of building 30.6 — — Proceeds from sale of building 30.6 — — Acquisition of business, net of cash acquired (4.5) (12.5) — Purchase of investment (2.3) — (3.4) Proceeds from sale of investment 12.8 3.1 — (Payments for) proceeds from disposition of Language Solutions business (4.0) 77.5 — Other investing activities (12.2) 30.2 33.1 — Payments on provided by investing activities (12.2) 30.2 33.1 — Net cash (used in) provided by investing activities (12.2) 30.2 33.1 — Payments on revolving facility borrowings 515.5 360.0 298.5 Payments on long-term debt (72.5) (97.5) (133.0) Proceeds from the issuance of common stock | Lease liabilities | | | | _ | | _ |
| Net cash provided by operating activities 54.5 66.3 91.4 INVESTING ACTIVITIES Capital expenditures (44.8) (37.1) (27.8) Proceeds from sale of building 30.6 — — Acquisition of business, net of cash acquired (4.5) (12.5) — Purchase of investment (2.3) — (3.4) Proceeds from sale of investment. (2.2) 30.2 (31.0) Private investing activities 515.5 360.0 298.5 Revolving facility borrowings 515.5 360.0 298.5 Payments on revolving facility borrowings (515.5) 360.0 | | | | | (1.9) | | (2.2) |
| NYESTING ACTIVITIES | | | | | | | |
| Capital expenditures (44.8) (37.1) (27.8) Proceeds from sale of building 30.6 — — Acquisition of business, net of cash acquired (4.5) (12.5) — Purchase of investment (2.3) — (3.4) Proceeds from sale of investment 12.8 3.1 — (Payments for) proceeds from disposition of Language Solutions business (4.0) 77.5 — Other investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities — (0.8) 0.2 Revolving facility borrowings 515.5 360.0 298.5 Payments on revolving facility borrowings 515.5 360.0 298.5 Payments on long-term debt (72.5) (97.5) (133.0) Proceeds from the issuance of common stock </td <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> | | _ | | | | | |
| Proceeds from sale of building 30.6 — — Acquisition of business, net of cash acquired (4.5) (12.5) — Purchase of investment (2.3) — (3.4) Proceeds from sale of investment 12.8 3.1 — (Payments for) proceeds from disposition of Language Solutions business (4.0) 77.5 — Other investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities — (12.2) 30.2 (31.0) FINANCING ACTIVITIES — — (0.8) 0.2 Payments on revolving facility borrowings 515.5 360.0 298.5 Payments on revolving facility borrowings (515.5) (360.0) (298.5) Payments on long-term debt — — 1.2 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs — — — 68.0 Proceeds from issuance of long-term debt — — — 68.0 Proceeds fro | | | (44.8) | | (37.1) | | (27.8) |
| Acquisition of business, net of cash acquired (4.5) (12.5) — Purchase of investment (2.3) — (3.4) Proceeds from sale of investment 12.8 3.1 — (Payments for) proceeds from disposition of Language Solutions business (4.0) 77.5 — Other investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities — (12.2) 30.2 (31.0) FINANCING ACTIVITIES S 8 298.5 Revolving facility borrowings 515.5 360.0 298.5 Payments on revolving facility borrowings (515.5) (360.0) (298.5) Payments on long-term debt — (72.5) (97.5) (133.0) Proceeds from the issuance of common stock — — 1.2 18.8 Treasury share repurchases — (1.8) (1.5) (0.9) Debt issuance costs — — — 68.0 Proceeds from issuance of long-term debt — — — — 68.0 | | | , , | | _ | | (27.0) |
| Purchase of investment. (2.3) — (3.4) Proceeds from sale of investment. 12.8 3.1 — (Payments for) proceeds from disposition of Language Solutions business (4.0) 77.5 — Other investing activities. — (0.8) 0.2 Net cash (used in) provided by investing activities. (12.2) 30.2 (31.0) FINANCING ACTIVITIES Stock of CIVITIES 8 298.5 Payments on revolving facility borrowings. 515.5 360.0 298.5 Payments on long-term debt. (72.5) (97.5) (133.0) Proceeds from the issuance of common stock. — 12 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — 68.0 68.0 Proceeds from issuance of long-term debt — 0.4 68.0 Proceeds from investing activities — 0.4 68.0 Proceeds from investing activities — 0.4 68.0 Reparation-related | | | | | (12.5) | | |
| Proceeds from sale of investment. 12.8 3.1 — (Payments for) proceeds from disposition of Language Solutions business (4.0) 77.5 — Other investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities. (12.2) 30.2 (31.0) FINANCING ACTIVITIES S 360.0 298.5 Payments on revolving facility borrowings 515.5 360.0 298.5 Payments on revolving facility borrowings (515.5) (360.0) (298.5) Payments on long-term debt (72.5) (97.5) (133.0) Proceeds from the issuance of common stock — 1.2 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 0.4 Net cash used in financing activities — — 0.4 Net cash used in financing activities 2.1 | | | ` ′ | | (12.5) | | (3.4) |
| (Payments for) proceeds from disposition of Language Solutions business (4.0) 77.5 — Other investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities — (12.2) 30.2 (31.0) FINANCING ACTIVITIES Revolving facility borrowings 515.5 360.0 298.5 Payments on revolving facility borrowings (515.5) (360.0) (298.5) Payments on long-term debt — (72.5) (97.5) (133.0) Proceeds from the issuance of common stock — 1.2 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 3.1 Other financing activities — — 3.1 Net cash used in financing activities — 2.1 (2.2) 1.1 Effect of exchange rate on cash and cash equivalents (30.1) <td></td> <td></td> <td></td> <td></td> <td>3.1</td> <td></td> <td>(3.1)</td> | | | | | 3.1 | | (3.1) |
| Other investing activities — (0.8) 0.2 Net cash (used in) provided by investing activities (12.2) 30.2 (31.0) FINANCING ACTIVITIES TEREVOIVING SECURITY SEC | | | | | | | _ |
| Net cash (used in) provided by investing activities. (12.2) 30.2 (31.0) FINANCING ACTIVITIES FINANCING activity borrowings. 515.5 360.0 298.5 Payments on revolving facility borrowings. (515.5) (360.0) (298.5) Payments on long-term debt. (72.5) (97.5) (133.0) Proceeds from the issuance of common stock. — 1.2 18.8 Treasury share repurchases. (1.8) (1.5) (0.9) Debt issuance costs. (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley. — — 68.0 Proceeds from issuance of long-term debt — — 3.1 Other financing activities — — 0.4 Net cash used in financing activities — — 0.4 Net cash used in financing activities — — 0.4 Net (decrease) increase in cash and cash equivalents — — 0.4 Net (decrease) increase in cash and cash equivalents — 0.2 1.1 Net (dec | | | . , | | | | 0.2 |
| FINANCING ACTIVITIES Revolving facility borrowings 515.5 360.0 298.5 Payments on revolving facility borrowings (515.5) (360.0) (298.5) Payments on long-term debt (72.5) (97.5) (133.0) Proceeds from the issuance of common stock — 1.2 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 0.4 Other financing activities — — 0.4 Net cash used in financing activities — — 0.4 Net cash used in financing activities — — 0.4 Net (decrease) increase in cash and cash equivalents — 1.1 0.4 Net (decrease) increase in cash and cash equivalents — 0.2 1.1 Net (decrease) increase in cash and cash equivalents — 0.3 1.5 Cash and cash e | | | | | | | |
| Revolving facility borrowings. 515.5 360.0 298.5 Payments on revolving facility borrowings. (515.5) (360.0) (298.5) Payments on long-term debt. (72.5) (97.5) (133.0) Proceeds from the issuance of common stock. — 1.2 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs. (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 0.4 Other financing activities — — 0.4 Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 47.3 52.0 36.2 Supplemental cash flow information: 10.1 \$ 47.3 52.0 36.2 | | _ | (12.2) | _ | 30.2 | _ | (31.0) |
| Payments on revolving facility borrowings (515.5) (360.0) (298.5) Payments on long-term debt (72.5) (97.5) (133.0) Proceeds from the issuance of common stock — 1.2 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 0.4 Other financing activities — — 0.4 Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 47.3 \$ 52.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | 515.5 | | 360.0 | | 208.5 |
| Payments on long-term debt. (72.5) (97.5) (133.0) Proceeds from the issuance of common stock — 1.2 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 0.4 Other financing activities — — 0.4 Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 47.3 \$ 52.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | | | | | |
| Proceeds from the issuance of common stock. — 1.2 18.8 Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 3.1 Other financing activities — — 0.4 Net cash used in financing activities — — 0.4 Net cash used in financing activities — — 0.4 Net cash used in financing activities — — 0.4 Net cash used in financing activities — — 0.4 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 47.3 52.0 Supplemental cash flow information: 10.1 \$ 30.5 Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 <td></td> <td></td> <td></td> <td></td> <td>()</td> <td></td> <td>. ,</td> | | | | | () | | . , |
| Treasury share repurchases (1.8) (1.5) (0.9) Debt issuance costs. (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — — 3.1 Other financing activities — — — 0.4 Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 \$ 47.3 \$ 52.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | (72.3) | | | | |
| Debt issuance costs. (0.2) (1.2) (2.1) Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 3.1 Other financing activities — — 0.4 Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 \$ 47.3 \$ 52.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | (1.9) | | | | |
| Separation-related payment from R.R. Donnelley — — 68.0 Proceeds from issuance of long-term debt — — 3.1 Other financing activities — — — 0.4 Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 47.3 \$ 25.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | J 1 | | ` ′ | | ` ′ | | . , |
| Proceeds from issuance of long-term debt — — — 3.1 Other financing activities — — 0.4 Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 \$ 47.3 \$ 52.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | (0.2) | | (1.2) | | . , |
| Other financing activities — — 0.4 Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 \$ 47.3 \$ 52.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | | | _ | | |
| Net cash used in financing activities (74.5) (99.0) (45.7) Effect of exchange rate on cash and cash equivalents 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period \$ 17.2 \$ 47.3 \$ 52.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | | | _ | | |
| Effect of exchange rate on cash and cash equivalents. 2.1 (2.2) 1.1 Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year. 47.3 52.0 36.2 Cash and cash equivalents at end of period. \$ 17.2 \$ 47.3 \$ 52.0 Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | (74.5) | | (00.0) | | |
| Net (decrease) increase in cash and cash equivalents (30.1) (4.7) 15.8 Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period $$17.2$ $$47.3$ $$52.0$ Supplemental cash flow information:Income taxes paid (net of refunds) $$25.0$ $$10.1$ $$30.5$ | | | | _ | | | |
| Cash and cash equivalents at beginning of year 47.3 52.0 36.2 Cash and cash equivalents at end of period $$17.2$ $$47.3$ $$52.0$ Supplemental cash flow information:Income taxes paid (net of refunds) $$25.0$ $$10.1$ $$30.5$ | | | | | | | |
| Cash and cash equivalents at end of period. \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | | | | | |
| Supplemental cash flow information: Income taxes paid (net of refunds) \$ 25.0 \$ 10.1 \$ 30.5 | | | | | | | |
| Income taxes paid (net of refunds) | Cash and cash equivalents at end of period | \$ | 17.2 | \$ | 47.3 | \$ | 52.0 |
| | Supplemental cash flow information: | | | | | | |
| Interest paid | Income taxes paid (net of refunds) | \$ | 25.0 | \$ | 10.1 | \$ | 30.5 |
| | Interest paid | \$ | 31.9 | \$ | 34.6 | \$ | 40.0 |

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN") Consolidated Statements of Equity (in millions)

| | C | Gr. 1 | Tr. | S4 1 | Additional Paid-in- | Retained Earnings (Accumulated | 1 | Total |
|---|--------|--------------------|----------|--------------------|------------------------|--------------------------------------|--------------|-----------------|
| | Shares | on Stock Amount | Shares | ry Stock Amount | Capital | Deficit) | Loss | Equity |
| Balance at January 1, 2017 | | \$ 0.3 | Snares — | \$ — | \$ 179.9 | \$ (0.8 |) \$ (68.3) | \$ 111.1 |
| Net earnings. | . — | | | _ | _ | 9.7 | _ | 9.7 |
| Other comprehensive income | . — | _ | | | | _ | 3.7 | 3.7 |
| Separation-related adjustments | . — | _ | | | 0.2 | | | 0.2 |
| Issuance of additional common shares | 0.9 | _ | | | 18.8 | | | 18.8 |
| Share-based compensation | . — | _ | | | 6.8 | | _ | 6.8 |
| Issuance of share-based awards, net of withholdings and other | 0.3 | | | (0.9) | | | | (0.9) |
| Balance at December 31, 2017 | 33.8 | \$ 0.3 | | \$ (0.9) | \$ 205.7 | \$ 8.9 | \$ (64.6) | <u>\$ 149.4</u> |
| Net earnings | . — | _ | | | _ | 73.6 | _ | 73.6 |
| Other comprehensive loss | . — | _ | | | _ | | (7.2) | (7.2) |
| Adoption of ASU 2018-02 | . — | _ | | _ | _ | 10.9 | (10.9) | _ |
| Adoption of ASU 2014-09 | . — | _ | | _ | - | 0.9 | _ | 0.9 |
| Share-based compensation | . — | _ | | | 9.2 | | _ | 9.2 |
| Issuance of share-based awards, net of withholdings and other | 0.4 | | 0.1 | _(1.5) | 1.6 | | | 0.1 |
| Balance at December 31, 2018 | 34.2 | \$ 0.3 | 0.1 | \$ (2.4) | \$ 216.5 | \$ 94.3 | \$ (82.7) | \$ 226.0 |
| Net earnings | . — | _ | _ | _ | _ | 37.6 | _ | 37.6 |
| Other comprehensive loss | . — | _ | | | | | (1.9) | (1.9) |
| Share-based compensation | | _ | | | 8.9 | _ | - | 8.9 |
| Issuance of share-based awards, net of withholdings and other | | | 0.2 | (1.8) | (0.2) | | | (2.0) |
| Balance at December 31, 2019 | 34.5 | \$ 0.3 | 0.3 | \$ (4.2) | \$ 225.2 | \$ 131.9 | \$ (84.6) | \$ 268.6 |

Note 1. Overview and Basis of Presentation

Description of Business

Donnelley Financial Solutions, Inc. and subsidiaries ("DFIN," or the "Company") is a leading global risk and compliance solutions company. The Company provides regulatory filing and deal solutions via its software-as-a-service ("SaaS"), technology-enabled services and print and distribution solutions to public and private companies, mutual funds and other regulated investment firms, to serve their regulatory and compliance needs. For corporate clients within its capital markets offerings, the Company offers technology-enabled filing solutions that allow U.S. public companies to comply with applicable U.S. Securities and Exchange Commission ("SEC") regulations including filing agent services, digital document creation and online content management tools that support their corporate financial transactions and regulatory reporting; solutions to facilitate clients' communications with their shareholders; and virtual data rooms and other deal management solutions. For the investment markets clients, including alternative investment and insurance investment companies, the Company provides technology-enabled filing solutions including cloud-based tools for creating and filing regulatory documents as well as solutions for investors designed to improve the speed of access to and accuracy of investment information. Throughout a company's life cycle, the Company serves its clients' regulatory and compliance needs. The Company's deep industry and regulatory expertise and a commitment to exceptional service guides its clients to navigate a complex and ever-changing regulatory environment.

DFIN's Registration Statement on Form 10, as amended, was declared effective by the SEC on September 20, 2016. On October 1, 2016, DFIN became an independent publicly traded company through the distribution by R.R. Donnelley & Sons Company ("RRD") of approximately 26.2 million shares, or 80.75%, of DFIN common stock to RRD shareholders (the "Separation"). Holders of RRD common stock received one share of DFIN common stock for every eight shares of RRD common stock held on September 23, 2016. As part of the Separation, RRD retained approximately 6.2 million shares of DFIN common stock, or a 19.25% interest in DFIN. DFIN's common stock began regular-way trading under the ticker symbol "DFIN" on the New York Stock Exchange on October 3, 2016. On October 1, 2016, RRD also completed the previously announced separation of LSC Communications, Inc. ("LSC"), its publishing and retail-centric print services and office products business. On March 28, 2017, RRD completed the sale of 6.2 million shares of LSC common stock (RRD's remaining ownership stake in LSC) in an underwritten public offering. As a result, beginning in the quarter ended June 30, 2017, LSC no longer qualified as a related party of the Company, therefore amounts disclosed related to LSC are presented through March 31, 2017 only.

On March 24, 2017, pursuant to the Stockholder and Registration Rights Agreement, dated as of September 30, 2016, by and between the Company and RRD, the Company filed a Registration Statement on Form S-1 to register the offering and sale of shares of the Company's common stock retained by RRD. The Registration Statement on Form S-1, as amended, was declared effective by the SEC on June 13, 2017. On June 21, 2017, RRD completed the sale of approximately 6.1 million shares of the Company's common stock in an underwritten public offering. Upon the consummation of the offering, RRD retained approximately 0.1 million shares of the Company's common stock which were subsequently sold by RRD on August 4, 2017. In conjunction with the underwritten public offering, the underwriters exercised their option to purchase approximately 0.9 million of the Company's shares (the "Option Shares"). The Company received approximately \$18.8 million in net proceeds from the sale of the Option Shares, after deducting estimated underwriting discounts and commissions. The proceeds were used to reduce outstanding debt under the Revolving Facility (as defined in Note 16, *Debt*). Beginning in the quarter ended September 30, 2017, RRD no longer qualified as a related party, therefore amounts disclosed related to RRD are presented through June 30, 2017 only.

Basis of Presentation

The consolidated financial statements include the accounts of DFIN and all majority-owned subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") and in accordance with the rules and regulations of the SEC. All intercompany transactions have been eliminated in consolidation.

DFIN generates a portion of net revenue from sales to RRD's subsidiaries. Included in the consolidated financial statements are net revenues from sales to RRD and affiliates of \$8.3 million for the six months ended June 30, 2017. DFIN utilizes RRD for freight and logistics, production of certain printed products and outsourced business services functions. Included in the consolidated financial statements are cost of sales to RRD and affiliates of \$51.8 million for the six months ended June 30, 2017.

Note 2. Significant Accounting Policies

Use of Estimates — The preparation of consolidated financial statements, in conformity with GAAP, requires the extensive use of management's estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes thereto. Actual results could differ from these estimates. Estimates are used when accounting for items and matters including, but not limited to, allowance for uncollectible accounts receivable, pension, goodwill and other intangible assets, asset valuations and useful lives, income taxes and other provisions and contingencies.

Foreign Operations —Assets and liabilities denominated in foreign currencies are translated into U.S. dollars at the exchange rates existing at the respective balance sheet dates. Income and expense items are translated at the average rates during the respective periods. Translation adjustments resulting from fluctuations in exchange rates are recorded as a separate component of other comprehensive income (loss) while transaction gains and losses are recorded in net earnings. Deferred taxes are not provided on cumulative foreign currency translation adjustments when the Company expects foreign earnings to be indefinitely reinvested.

Fair Value Measurements—Certain assets and liabilities are required to be recorded at fair value on a recurring basis. Fair value is determined based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. The Company records the fair value of its pension plan assets on a recurring basis. See Note 14, Retirement Plans, for the fair value of the Company's pension plan assets as of December 31, 2019.

The Company measures its equity investments that do not have a readily determinable fair value, at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. See Note 11, *Investments*, for more information.

In addition to assets and liabilities that are recorded at fair value on a recurring basis, the Company is required to record certain assets and liabilities at fair value on a nonrecurring basis, generally as a result of acquisitions or the remeasurement of assets resulting in impairment charges. Assets measured at fair value on a nonrecurring basis include long-lived assets held and used, long-lived assets held for sale, goodwill and other intangible assets. The fair value of cash and cash equivalents, accounts receivable and accounts payable approximate their carrying values. The three-tier value hierarchy, which prioritizes valuation methodologies based on the reliability of the inputs, is:

- Level 1 Valuations based on quoted prices for identical assets and liabilities in active markets.
- Level 2 Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.
- **Level 3** Valuations based on unobservable inputs reflecting the Company's own assumptions, consistent with reasonably available assumptions made by other market participants.

Revenue Recognition — The Company manages highly-customized data and materials, such as filings on behalf of its customers with the SEC related to the Securities Exchange Act of 1934 as amended (the "Exchange Act"), the Securities Act of 1933, as amended (the "Securities Act"), and performs eXtensible Business Reporting Language ("XBRL") and related services. The Company's SaaS offerings include the Venue Virtual Data Room, the FundSuiteArc software platform, ActiveDisclosure and data and analytics, among others. The Company also provides digital document creation, online content management and print and distribution solutions to public and private companies, mutual funds and other regulated investment firms to serve their regulatory and compliance needs.

The Company separately reports its net sales and related cost of sales for its services and products offerings. The Company's services offerings consist of document composition, compliance-related EDGAR filing services, transaction solutions, and the Company's SaaS solutions, including Venue, FundSuiteArc, ActiveDisclosure, EDGAR Online and others. The Company's product offerings primarily consist of conventional and digital printed products and related shipping costs. Prior to the sale of the Company's Language Solutions business on July 22, 2018, the Company provided language solutions services to international clients.

Refer to Note 3, *Revenue*, for a discussion of the Company's revenue recognition following the 2018 adoption of the Accounting Standards Update ("ASU") No. 2014-09 "Revenue from Contracts with Customers (Topic 606)" ("ASU 2014-09").

Cash and cash equivalents — The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. Short-term securities consist of investment grade instruments of governments, financial institutions and corporations.

Receivables — Receivables are stated net of allowances for doubtful accounts and primarily include trade receivables as well as miscellaneous receivables from suppliers. Specific customer provisions are made when a review of significant outstanding amounts, utilizing information about customer creditworthiness and current economic trends, indicates that collection is doubtful. In addition, provisions are made at differing rates, based upon the age of the receivable and the Company's historical collection experience. No single customer comprised more than 10% of the Company's net sales in 2019, 2018 or 2017. See Note 8, *Accounts Receivable*, for details of activity affecting the allowance for doubtful accounts receivable.

Inventories — Inventories include material, labor and factory overhead and are stated at the lower of cost or market and net of excess and obsolescence reserves for raw materials. Provisions for excess and obsolete inventories are made at differing rates, utilizing historical data and current economic trends, based upon the age and type of the inventory. Specific excess and obsolescence provisions are also made when a review of specific balances indicates that the inventories will not be utilized in production or sold. Inventory is valued using the First-In, First-Out (FIFO) method.

Prepaid Expenses — Prepaid expenses as of December 31, 2019 and 2018 were \$9.6 million and \$13.9 million, respectively.

Long-Lived Assets — The Company assesses potential impairments to its long-lived assets, including long-lived intangible assets, if events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. An impaired asset is written down to its estimated fair value based upon the most recent information available. Estimated fair market value is generally measured by discounting estimated future cash flows. Long-lived assets, other than goodwill, are recorded at the lower of the carrying value or the fair market value less the estimated cost to sell.

Property, plant and equipment — Property, plant and equipment are recorded at cost and depreciated on a straight-line basis over their estimated useful lives. Useful lives range from 15 to 40 years for buildings, the lesser of 7 years or the lease term for leasehold improvements and from 3 to 15 years for machinery and equipment. Maintenance and repair costs are charged to expense as incurred. Major overhauls that extend the useful lives of existing assets are capitalized. When properties are retired or disposed, the costs and accumulated depreciation are eliminated and the resulting profit or loss is recognized in the results of operations.

Software — The Company incurs costs to develop software applications for internal-use and for the development of SaaS solutions sold to its clients. These costs include both direct costs from third-party vendors and eligible salaries and payroll-related costs of employees. The Company capitalizes costs associated with internal-use software and SaaS solutions when management with the relevant authority authorizes and commits to the funding of the software project and it is probable that the project will be completed and the software will be used to perform the functions intended. Costs associated with upgrades and enhancements of internal-use software and SaaS solutions are capitalized only if such modifications result in additional functionality of the software, whereas costs incurred for preliminary project stage activities, training, project management and maintenance is expensed as incurred.

Capitalized software development costs are amortized over their estimated useful life using the straight-line method, up to a maximum of three years. Amortization expense related to internally-developed software, excluding amortization expense related to other intangible assets, was \$27.6 million, \$24.3 million and \$22.5 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Goodwill and Other Intangible Assets — Goodwill is either assigned to a specific reporting unit or allocated between reporting units based on the relative fair value of each reporting unit in certain circumstances.

Goodwill is reviewed for impairment annually as of October 31 or more frequently if events or changes in circumstances indicate that it is more likely than not that the fair value of a reporting unit is below its carrying amount. The Company also performs an interim review for indicators of impairment at each quarter-end to assess whether an interim impairment review is required for any reporting unit.

For certain reporting units, the Company may perform a qualitative, rather than quantitative, assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. In performing this qualitative analysis, the Company considers various factors, including the excess of prior year estimates of fair value compared to carrying value, the effect of market or industry changes and the reporting units' actual results compared to projected results. Based on this qualitative analysis, if management determines that it is more likely than not that the fair value of the reporting unit is greater than its carrying value, no further impairment testing is performed.

For the year ended December 31, 2019, each of the reporting units was reviewed for impairment using a quantitative assessment. The Company compared each reporting unit's fair value, estimated based on comparable company market valuations and expected future discounted cash flows to be generated by the reporting unit, to its carrying amount. If the carrying amount exceeds the reporting unit's fair value, the Company will recognize an impairment loss for the amount by which the carrying amount exceeds the fair value. The results of the quantitative assessment of goodwill impairment as of October 31, 2019, indicated that the estimated fair values for each of the reporting units exceeded their respective carrying amounts. Therefore, no impairment losses were recognized.

Other long-lived intangible assets are recognized separately from goodwill and are amortized on a straight-line basis over their estimated useful lives. See Note 6, *Goodwill and Other Intangible Assets*, for further discussion of other intangible assets and the related amortization expense.

Share-Based Compensation — The Company recognizes share-based compensation expense based on estimated fair values for all share-based awards made to employees and directors, including non-qualified stock options ("stock options"), restricted stock units ("RSUs"), performance-based restricted stock ("PBRS") and performance share units ("PSUs"). The Company recognizes compensation costs for RSUs expected to vest, on a straight-line basis over the requisite service period of the award, which is generally the vesting term of three years. Compensation expense for PBRS awards granted in 2016, which vest on a graded basis, is recognized utilizing a graded vesting schedule. Compensation expense for PBRS awards granted in 2017, which cliff vest, is recognized on a straight-line basis over the performance period of the award. The Company recognizes compensation costs for PSUs, which cliff vest, on a straight-line basis over the performance period of the award. Compensation expense for stock options is recognized on a straight-line basis over the requisite service period of the award, which is generally the vesting term of four years. See Note 18, Share-Based Compensation, for further discussion.

Pension and Other Post-Retirement Plans — DFIN engages outside actuaries to assist in the determination of the obligations and costs under these plans, which are frozen to new participants. The annual income and expense amounts relating to the pension plan and other postretirement benefit plan are based on calculations which include various actuarial assumptions including, mortality expectations, discount rates and expected long-term rates of return. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends when it is deemed appropriate to do so. The effects of modifications on the value of plan obligations and assets is recognized immediately within other comprehensive income (loss) and amortized into operating earnings over future periods. The Company believes that the assumptions utilized in recording its obligations under its plans are reasonable based on its experience, market conditions and input from its actuaries and investment advisors. Refer to Note 14, Retirement Plans, for further discussion.

Income Taxes — Deferred taxes are provided using an asset and liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss carryforwards and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax basis. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment.

The Company maintains an income taxes payable or receivable account in each jurisdiction and, with the exception of certain entities outside the U.S. that transferred to the Company at Separation, the Company is deemed to settle current tax balances with the RRD tax paying entities in the respective jurisdictions. The Company classifies interest expense and any related penalties related to income tax uncertainties as a component of income tax expense.

The Company is regularly audited by foreign and domestic tax authorities. These audits occasionally result in proposed assessments where the ultimate resolution might result in the Company owing additional taxes, including in some cases, penalties and interest. The Company recognizes a tax position in its financial statements when it is more likely than not (*i.e.*, a likelihood of more than fifty percent) that the position would be sustained upon examination by tax authorities. This recognized tax position is then measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Although management believes that its estimates are reasonable, the final outcome of uncertain tax positions may be materially different from that which is reflected in the Company's consolidated financial statements. The Company adjusts such reserves upon changes in circumstances that would cause a change to the estimate of the ultimate liability, upon effective settlement or upon the expiration of the statute of limitations, in the period in which such event occurs. See Note 15, *Income Taxes*, for further discussion.

Commitments and Contingencies — The Company is subject to lawsuits, investigations and other claims related to environmental, employment, commercial and other matters, as well as preference claims related to amounts received from customers and others prior to their seeking bankruptcy protection. Periodically, the Company reviews the status of each significant matter and assesses potential financial exposure. See Note 13, Commitments and Contingencies, for further discussion.

Restructuring — The Company records restructuring charges when liabilities are incurred as part of a plan approved by management with the appropriate level of authority for the elimination of duplicative functions, the closure of facilities, or the exit of a line of business, generally in order to reduce the Company's overall cost structure. See Note 5, Restructuring, Impairment and Other Charges, for further discussion.

Recently Adopted Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, which requires lessees to record most leases on the balance sheet but recognize expense on the income statement in a manner similar to the former accounting standard. The Company adopted the standard and all related amendments on January 1, 2019 using the optional transition method. The comparative periods have not been restated and continue to be reported under the accounting standards in effect for those periods. Refer to Note 7, *Leases*, for further information.

Recently Issued Accounting Pronouncements

In June 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments ("ASU 2016-13"), which replaces the incurred loss model with a current expected credit loss ("CECL") model and requires consideration of a broader range of reasonable and supportable information to explain credit loss estimates. This standard applies to financial assets, measured at amortized cost, including loans, held-to-maturity debt securities, net investments in leases and trade accounts receivable. The guidance must be adopted using a modified retrospective transition method through a cumulative-effect adjustment to retained earnings in the period of adoption. The Company will adopt the standard in the first quarter of 2020. The adoption of this standard is not expected to have a material impact on the Company's consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, "Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40)." The standard requires a customer in a hosting arrangement that is a service contract to follow the internal-use software guidance to determine which implementation costs to capitalize as an asset related to the service contract and to expense the capitalized implementation costs over the term of the hosting arrangement. The standard is effective for fiscal years beginning after December 15, 2019, and the interim periods within those fiscal years. The Company will adopt the amendment prospectively in the first quarter of 2020. The adoption of this standard is not expected to have a material impact on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes ("ASU 2019-12"), which modifies ASC 740, Income Taxes, to simplify the accounting for income taxes by removing certain exceptions for recognizing deferred taxes for investments, performing intraperiod allocation and calculating income taxes in interim periods. ASU 2019-12 also adds guidance to reduce complexity in certain areas, including recognizing deferred taxes for tax goodwill and allocating taxes to members of a consolidated group. The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Early adoption is permitted. The Company is currently evaluating the impact of the adoption of this standard on its consolidated financial statements.

Note 3. Revenue

Revenue Recognition

The Company manages highly-customized data and materials, such as the Exchange Act, the Securities Act and the Investment Company Act filings with the SEC on behalf of its customers as well as manages virtual data rooms and performs XBRL and related services. Clients are provided with the Electronic Data, Gathering, Analysis and Retrieval ("EDGAR") filing services, XBRL compliance services and translation, editing, interpreting, proof-reading and multilingual typesetting services, among others. The Company's SaaS offerings include the Venue Virtual Data Room, the FundSuiteArc software platform, ActiveDisclosure and data and analytics, and others.

Substantially all of the Company's revenue is derived from contracts with an initial expected duration of one year or less. Generally, customer payment is due within ten days upon invoicing.

Revenue is recognized upon transfer of control of promised services or products to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those services or products. The Company's arrangements with customers often include promises to transfer multiple services or products to a customer. Determining whether services and products are considered distinct performance obligations that should be accounted for separately requires significant judgment. Certain customer arrangements have multiple performance obligations as certain promises are both capable of being distinct and are distinct within the context of the contract. Other customer arrangements have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts, and therefore are not distinct.

Revenue for the Company's services and products is recognized either over time or at a point in time, as outlined below.

Over time

The Company recognizes revenue for certain services over time.

- The Company's SaaS solutions, including the Venue Virtual Data Room, the FundSuiteArc software platform, ActiveDisclosure, data and analytics and others, are generally provided on a subscription basis and allow customers access to use the products over the contract period. As a result, revenue for SaaS solutions are recognized ratably over time as the customer receives the benefit throughout the contract period. The timing of invoicing varies, however the customer may be invoiced before the end of the contract period, resulting in a deferred revenue balance.
- Revenue for warehousing services are recognized ratably over time as the customer receives the benefit throughout the storage period.

Point in time

All remaining revenue arrangements are generally recognized at a point in time and are primarily invoiced upon completion of all services or upon shipment to the customer.

- Certain arrangements include multiple performance obligations and revenue is recognized upon completion of each performance obligation, such as when a document is filed with a regulatory agency and upon completion of printing the related document. For arrangements with multiple performance obligations, the transaction price is allocated to the separate performance obligations. The Company provides customer specific solutions and as such, observable standalone selling price is rarely available. Standalone selling price is determined using an estimate of the standalone selling price of each distinct service or product, taking into consideration historical selling price by customer for each distinct service or product. These estimates may vary from the final amounts invoiced to the customer and are adjusted upon completion of all performance obligations. Customers may be invoiced subsequent to the recognition of revenue for completed performance obligations, resulting in contract asset balances, which are reflected within accounts receivable in the Company's consolidated balance sheets, as further described below.
- Revenue for arrangements which include assisting customers in completing regulatory filings for transactions, such as mergers and acquisitions or other public capital market transactions, is recognized upon completion of all obligations, including the services performed and printing of the related document, if applicable.
- Revenue for arrangements without a regulatory filing generally have a single performance obligation. As the services and products provided are not distinct within the context of the contract, the revenue is recognized upon completion of the services performed or upon completion of printing of the related product.
- Warehousing, fulfillment services and shipping and handling are each separate performance obligations. As a result, when the Company provides warehousing and future fulfillment services, revenue for the composition services performed and printing of the product is recognized upon completion of the performance obligation(s), as control of the inventory has transferred to the customer and the inventory is being stored at the customer's request.

Because substantially all of the Company's products are customized, product returns are not significant; however, the Company accrues for the estimated amount of customer credits at the time of sale.

The Company records deferred revenue when amounts are invoiced but the revenue recognition criteria are not yet met. Such revenue is recognized when all criteria are subsequently met.

Certain revenues earned by the Company require significant judgment to determine if revenue should be recorded gross, as a principal, or net of related costs, as an agent. Billings for shipping and handling costs as well as certain postage costs, and out-of-pocket expenses are recorded gross. Revenue is not recognized for customer-supplied postage. The Company's printing operations process paper that may be supplied directly by customers or may be purchased by the Company from third parties and sold to customers. Revenue is not recognized for customer-supplied paper; however, revenues for Company-supplied paper are recognized on a gross basis. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to authorities. The Company expenses the costs to obtain the contract, primarily commissions, as incurred.

Disaggregation of revenue

The following tables disaggregates revenue by reporting unit and timing of revenue recognition for the year ended December 31, 2019 and 2018:

| | Year Ended December 31, 2019 | | | | |
|---|------------------------------------|----------------------------|--|------------------------|--|
| | Point in time | Over time | Total | | |
| U.S. | | | | | |
| Capital Markets | \$ 323.7 | \$ 97.3 | \$ 4 | 121.0 | |
| Investment Markets | 295.0 | 45.4 | 3 | 340.4 | |
| Total U.S. | 618.7 | 142.7 | 7 | 761.4 | |
| International | 85.3 | 28.0 | 1 | 113.3 | |
| Total net sales | \$ 704.0 | \$ 170.7 | \$ 8 | 374.7 | |
| | | | | | |
| | | | | | |
| | Year | Ended December 3 | , 2018 | | |
| | Year Point in time | Ended December 3 Over time | , 2018 Total | | |
| U.S. | | | | | |
| U.S. Capital Markets | Point in time | Over time | Total | 156.0 | |
| | Point in time | Over time | Total | | |
| Capital Markets | Point in time \$ 358.9 | Over time \$ 97.1 | Total | 156.0 | |
| Capital Markets Investment Markets | Point in time \$ 358.9 291.6 | Over time \$ 97.1 | ************************************** | 456.0 342.1 | |
| Capital Markets Investment Markets Language Solutions | Point in time \$ 358.9 291.6 13.7 | 97.1 50.5 | *** Total | 456.0 342.1 13.7 | |

Contract Balances

The timing of revenue recognition may differ from the timing of invoicing to customers and these timing differences result in unbilled receivables, contract assets or contract liabilities. Contract assets represent revenue recognized for performance obligations completed before an unconditional right to payment exists and therefore invoicing has not yet occurred. Unbilled receivables are recorded when there is an unconditional right to payment and invoicing has not yet occurred. Contract assets were \$8.9 million at December 31, 2019 and \$8.7 million at December 31, 2018, respectively. Generally, the contract assets balance is impacted by the recognition of additional contract assets, offset by amounts invoiced to customers. For the year ended December 31, 2019, final amounts invoiced to customers exceeded estimates of standalone selling price as of January 1, 2019 for the related arrangements by approximately \$1.5 million. Unbilled receivables and contract assets are included in accounts receivable on the consolidated balance sheet.

Contract liabilities consist of deferred revenue and progress billings which are included in accrued liabilities on the consolidated balance sheet. Changes in contract liabilities were as follows:

| Balance at January 1, 2019 Deferral of revenue Revenue recognized Balance at December 31, 2019 | 12.0 51.2 (50.1) 13.1 |
|---|------------------------------------|
| Balance at January 1, 2018 | 14.2 |
| Deferral of revenue | 47.1 |
| Revenue recognized | (47.9) |
| Disposition | (1.6) |
| Acquisition | 0.2 |
| Balance at December 31, 2018. | \$ 12.0 |

Note 4. Acquisitions and Dispositions

Acquisition

On December 18, 2018, the Company acquired eBrevia, Inc. ("eBrevia"), a leading provider of artificial intelligencebased data extraction and contract analytics software solutions. The eBrevia technology provides leading enterprise contract review and analysis solutions, leveraging machine learning to produce faster and more accurate results. eBrevia's software, which extracts and summarizes key legal provisions and other information, can be used in due diligence, contract management, lease abstraction and document drafting. The acquisition enhances the Company's Venue offerings to provide clients with secure data aggregation, due diligence, compliance and risk management solutions. The Company previously held a 12.8% investment in eBrevia prior to the acquisition. The purchase price for the remaining equity of eBrevia, which includes the Company's estimate of contingent consideration, was \$23.3 million, net of cash acquired of \$0.2 million. \$4.5 million of the purchase price was paid during 2019. The fair value of the Company's previously held investment was \$3.3 million, resulting in the recognition of a \$1.8 million gain, which is reflected in investment and other income in the consolidated statements of operations for the year ended December 31, 2018. The fair value of the previously held investment was determined based on the purchase price paid for the remaining equity less an estimated control premium. The former owners of eBrevia, excluding the Company, may receive additional contingent consideration of up to \$3.5 million in cash subject to eBrevia achieving certain financial targets during the twenty-four months post acquisition. As of the acquisition date and as of December 31, 2019, the Company estimated the fair value of contingent consideration to be \$0.8 million using a probability weighting of the potential payouts. Subsequent changes in the estimated contingent consideration from the final purchase price allocation will be recognized in the Company's consolidated statement of operations. The operations of eBrevia are included within the Capital Markets reporting unit in the U.S. segment.

For the years ended December 31, 2019 and 2018, the Company recorded \$0.1 million and \$0.8 million, respectively, of acquisition-related expenses associated with acquisitions completed or contemplated within selling, general and administrative expenses in the consolidated statements of operations.

The eBrevia acquisition was recorded by allocating the cost of the acquisition to the assets acquired, including other intangible assets, based on their estimated fair values at the acquisition date. The excess of the cost of the acquisition over the net amounts assigned to the fair value of the assets acquired was recorded as goodwill.

There is no tax deductible goodwill related to the eBrevia acquisition.

The final allocation of consideration paid for the eBrevia acquisition is summarized as follows:

| Accounts receivable | \$ 0.3 |
|---|------------|
| Other intangible assets | 11.4 |
| Software | 0.8 |
| Goodwill | 12.8 |
| Accounts payable and accrued liabilities | (0.4) |
| Deferred taxes-net | (1.6) |
| Total purchase price-net of cash acquired | 23.3 |
| Less: fair value of the Company's previously held investment in eBrevia | (3.3) |
| Less: fair value of contingent consideration | (0.8) |
| Less: amounts held in escrow and liabilities assumed | (2.2) |
| Net cash paid | \$ 17.0 |

Disposition

On July 22, 2018, the Company sold its Language Solutions business, which helped companies adapt their business content into different languages for specific countries, markets and regions, for net proceeds of \$77.5 million in cash, all of which was received as of December 31, 2018, resulting in a gain of \$53.8 million, which was recognized in other operating income in the consolidated statement of operations for the year ended December 31, 2018. During the year ended December 31, 2019, the Company recognized a \$4.0 million loss related to the disposition of the Language Solutions business which is reflected in other operating income in the consolidated statement of operations. Language Solutions' operating results were included within the Language Solutions reporting unit within the U.S. segment as well as the International segment.

Note 5. Restructuring, Impairment and Other Charges

Restructuring, Impairment and Other Charges recognized in Results of Operations

| | | | | Total | | | | | |
|---------------|------|-----------|----|-------------|-----|----------|-------|---------|------------|
| | Er | nployee | Re | structuring | | | | Other | |
| 2019 | Teri | minations | | Charges | Imp | pairment | | Charges | Total |
| U.S | \$ | 5.3 | \$ | 5.3 | \$ | 2.0 | (1)\$ | 0.2 | \$ 7.5 |
| International | | 1.2 | | 1.2 | | 1.0 | (2) | _ | 2.2 |
| Corporate | | 2.6 | | 2.6 | | 0.4 | | 0.9 | 3.9 |
| Total | \$ | 9.1 | \$ | 9.1 | \$ | 3.4 | \$ | 1.1 | \$ 13.6 |

⁽¹⁾ See Note 11, Investments, for further discussion regarding the impairment charges related to an equity investment.

For the year ended December 31, 2019, the Company recorded net restructuring charges of \$9.1 million for employee termination costs for 271 employees, substantially all of whom were terminated as of December 31, 2019. These charges primarily related to the reorganization of certain operations and certain administrative functions. During the year ended December 31, 2019, the Company also incurred \$1.1 million of other charges.

| 2018 | Employee Terminations | 1 | Other Restructuring Charges | R | Total Restructuring Charges | Other Charges | | Total |
|---------------|--------------------------|----|-----------------------------------|----|-----------------------------------|------------------|----|-------|
| U.S | \$ 1.0 | \$ | 0.8 | \$ | 1.8 | \$ 0.2 | \$ | 2.0 |
| International | 1.8 | | | · | 1.8 | | · | 1.8 |
| Corporate | 0.6 | | | | 0.6 | _ | | 0.6 |
| Total | \$ 3.4 | \$ | 0.8 | \$ | 4.2 | \$ 0.2 | \$ | 4.4 |

For the year ended December 31, 2018, the Company recorded net restructuring charges of \$3.4 million for employee termination costs for 89 employees, all of whom were terminated as of December 31, 2019. These charges primarily related to the reorganization of certain operations and certain administrative functions. During the year ended December 31, 2018, the Company also incurred \$0.8 million of net lease termination and other restructuring costs and \$0.2 million for other charges.

| 2017 | Employee Terminations | Rest | Other ructuring harges | Restr | Total ructuring narges | Imp | airment | Other harges | Total |
|---------------|--------------------------|------|------------------------------|-------|------------------------------|-----|---------|-----------------|-----------|
| U.S | \$ 3.3 | \$ | 0.2 | \$ | 3.5 | \$ | 0.2 | \$ 0.2 | \$ 3.9 |
| International | 2.1 | | 0.1 | | 2.2 | | | | 2.2 |
| Corporate | 1.0 | | | | 1.0 | | | | 1.0 |
| Total | \$ 6.4 | \$ | 0.3 | \$ | 6.7 | \$ | 0.2 | \$ 0.2 | \$ 7.1 |

⁽²⁾ See Note 6, Goodwill and Other Intangible Assets, for further discussion regarding the intangible asset impairment charge.

For the year ended December 31, 2017, the Company recorded net restructuring charges of \$6.4 million for employee termination costs for 192 employees, all of whom were terminated as of December 31, 2018. These charges primarily related to the reorganization of certain operations and certain administrative functions. During the year ended December 31, 2017, the Company also incurred \$0.3 million of net lease termination and other restructuring costs, \$0.2 million of net impairment charges related to leasehold improvements associated with facility closures and \$0.2 million for other charges.

Restructuring Reserve

The restructuring reserve as of December 31, 2019 and 2018, and changes during the year ended December 31, 2019, were as follows:

| | December 31, | R | estructuring | | | Adoption of | December 31, | | |
|------------------------------|--------------|----|--------------|-------------|----|-------------|--------------|----|------|
| | 2018 | | Charges | Reversals | _ | ASU 2016-02 | Cash Paid | | 2019 |
| Employee terminations | \$ 0.4 | \$ | 9.2 | \$ (0.1) | \$ | S — | \$ (7.6) | \$ | 1.9 |
| Lease terminations and other | 1.3 | | | <u> </u> | | (1.1) | (0.1) | | 0.1 |
| Total | \$ 1.7 | \$ | 9.2 | \$ (0.1) | \$ | (1.1) | \$ (7.7) | \$ | 2.0 |

The restructuring reserve of \$2.0 million at December 31, 2019 was included in accrued liabilities.

The Company anticipates that payments associated with the employee terminations reflected in the above table will be substantially completed by June 30, 2020.

Upon adoption of ASU 2016-02, the restructuring liabilities related to lease terminations as of January 1, 2019 were recorded as a reduction to the related ROU assets recorded on January 1, 2019. Refer to Note 7, *Leases*, for more information.

The restructuring reserve as of December 31, 2018 and 2017, and changes during the year ended December 31, 2018, were as follows:

| | De | ecember 31, | R | Restructuring | | | | Cash | December 31, | | |
|------------------------------|----|-------------|----|---------------|-----------|----------|----|-------|--------------|-----|--|
| | | 2017 | | Charges | Reversals | | | Paid | 2018 | | |
| Employee terminations | \$ | 1.3 | \$ | 3.6 | \$ | (0.2) | \$ | (4.3) | \$ | 0.4 | |
| Lease terminations and other | | 2.1 | | 0.8 | | <u> </u> | | (1.6) | | 1.3 | |
| Total | \$ | 3.4 | \$ | 4.4 | \$ | (0.2) | \$ | (5.9) | \$ | 1.7 | |

The current portion of restructuring reserves of \$1.4 million at December 31, 2018 was included in accrued liabilities, while the long-term portion of \$0.3 million, primarily related to lease termination costs, was included in other noncurrent liabilities at December 31, 2018.

Note 6. Goodwill and Other Intangible Assets

The changes in the carrying amount of goodwill by segment for the years ended December 31, 2019 and 2018 were as follows:

| | U.S. | Int | ernational | Total |
|--|-------------|-----|------------|-------------|
| Net book value as of January 1, 2018 | \$ 429.2 | \$ | 18.2 | \$ 447.4 |
| Acquisition | 12.8 | | _ | 12.8 |
| Disposition | (3.5) | | (5.8) | (9.3) |
| Foreign exchange and other adjustments | | | (0.9) | (0.9) |
| Net book value as of December 31, 2018 | 438.5 | | 11.5 | 450.0 |
| Foreign exchange and other adjustments | | | 0.3 | 0.3 |
| Net book value as of December 31, 2019 | 438.5 | \$ | 11.8 | \$ 450.3 |

The components of other intangible assets at December 31, 2019 and 2018 were as follows:

| | December 31, 2019 | | | | | | | | | |
|---|-------------------|-----------------------------|--------------------------------------|-------|----|-----------------------------|-------------------|------|--|--|
| | | Gross Carrying Amount | Accumulated Impairment Charges | | | Accumulated Amortization | Net Book Value | | | |
| Customer relationships (useful life of 10-15 years) | \$ | 149.8 | \$ | (1.0) | \$ | (127.7) | \$ | 21.1 | | |
| Trade names (useful life of 5 years) | | 3.9 | | | | (3.1) | | 0.8 | | |
| Total other intangible assets | \$ | 153.7 | \$ | (1.0) | \$ | (130.8) | \$ | 21.9 | | |

| | December 31, 2018 | | | | | | | | | |
|---|-------------------|-----------------------------|----|--------------------------------------|-----------------------------|---------|----|-------------------|--|--|
| | | Gross Carrying Amount | | Accumulated Impairment Charges | Accumulated Amortization | | | Net Book Value | | |
| Customer relationships (useful life of 10-15 years) | \$ | 149.3 | \$ | _ | \$ | (113.1) | \$ | 36.2 | | |
| Trade names (useful life of 5 years) | | 3.9 | | _ | | (2.9) | | 1.0 | | |
| Total other intangible assets | \$ | 153.2 | \$ | <u> </u> | \$ | (116.0) | \$ | 37.2 | | |

Impairment of Other Intangible Assets—For the year ended December 31, 2019, the Company recognized impairment charges of \$1.0 million related to customer relationship intangible assets from the Company's European operations.

Other Intangible Assets—Amortization expense for other intangible assets was \$14.3 million, \$13.7 million and \$15.0 million for the years ended December 31, 2019, 2018 and 2017, respectively. The weighted-average remaining useful life for the unamortized intangible assets as of December 31, 2019 is approximately seven years.

The following table outlines the estimated annual amortization expense related to other intangible assets as of December 31, 2019:

| For the year ending December 31, | Amount |
|----------------------------------|------------|
| 2020 | \$ 12.3 |
| 2021 | 0.9 |
| 2022 | 0.9 |
| 2023 | 0.9 |
| 2024 | 0.7 |
| 2025 and thereafter | 6.2 |
| Total | \$ 21.9 |

Note 7. Leases

In February 2016, the FASB issued ASU No. 2016-02 "Leases (Topic 842)" ("ASU 2016-02"), which requires lessees to recognize most leases on the balance sheet but recognize expense on the income statement in a manner similar to current accounting. For lessors, ASU 2016-02 also modifies the classification criteria and the accounting for sales-type and direct financing leases. On January 1, 2019, the Company adopted the standard and all related amendments, using the optional transition method applied to leases at the adoption date. The comparative periods have not been restated and continue to be reported under the accounting standards in effect for those periods. The Company elected the optional package of practical expedients to not reassess prior conclusions related to contracts containing leases, lease classification and initial direct costs. The Company also elected the practical expedient to not separate lease components from non-lease components for real estate leases. As a result of the adoption of ASU 2016-02, the Company recognized a lease liability of \$101.6 million and a right-of-use ("ROU") asset of \$100.8 million for operating leases at January 1, 2019.

The Company has operating leases for certain service centers, office space, warehouses and equipment. Depending on the lease type, the original lease terms generally range from one year to 35 years. The remaining terms of the Company's leases range from less than a year to six years. Operating lease ROU assets and operating lease liabilities are recognized based on the present value of future minimum lease payments over the lease term at commencement date. Upon adoption of ASU 2016-02, ROU assets were adjusted for deferred rent, restructuring liabilities, prepaids and favorable/onerous lease balances as of January 1, 2019. Lease expense is recognized on a straight-line basis over the expected lease term. The Company's incremental borrowing rate is used in determining the present value of future payments at the commencement date of the lease, or for the adoption of ASU 2016-02, at January 1, 2019. Balances related to operating leases are included in ROU assets, accrued liabilities and noncurrent lease liabilities on the consolidated balance sheets.

All real estate leases are recorded on the consolidated balance sheets. Equipment and other non-real estate leases with an initial term of twelve months or less are not recorded on the consolidated balance sheets. Lease agreements for some locations provide for rent escalations and renewal options. Lease terms include the option to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Certain real estate leases require payment for taxes, insurance and maintenance which are considered non-lease components. The Company accounts for real estate leases and the related fixed non-lease components together as a single component.

The Company determines if an arrangement is a lease at inception. The Company must consider whether the contract conveys the right to control the use of an identified asset. Certain arrangements require significant judgment to determine if an asset is specified in the contract and if the Company directs how and for what purpose the asset is used during the term of the contract.

The Company has non-cancelable sublease rental arrangements which did not reduce the future maturities of the operating lease liabilities at December 31, 2019 and did not reduce future rental commitments at December 31, 2018. Future rental commitments for leases have not been reduced by minimum non-cancelable sublease rentals aggregating approximately \$24.7 million and \$28.5 million for the years ended December 31, 2019 and 2018, respectively. The Company remains secondarily liable under these leases in the event that the sub-lessee defaults under the sublease terms. The Company does not believe that material payments will be required as a result of the secondary liability provisions of the primary lease agreements.

The components of net lease expense for the year ended December 31, 2019 were as follows:

| | Year ended December 31, 2019 |
|-------------------------|---------------------------------|
| Operating lease expense | \$ 26.2 |
| Sublease income | (5.1) |
| Net lease expense | \$ 21.1 |

Other information related to operating leases as of and for the year ended December 31, 2019 were as follows:

| Lease Term and Discount Rate | December 31, 2019 |
|---|---------------------------------|
| Weighted average remaining lease term | 4.4 years |
| Weighted average discount rate | 4.6% |
| Lease Liabilities | Year ended December 31, 2019 |
| Cash paid related to lease liabilities | \$ 27.9 |
| Non-cash disclosure: | |
| Increase in lease liabilities due to new ROU assets | \$ 9.9 |
| Decrease in lease liabilities due to lease modifications and remeasurements | (7.9) |

Maturities of lease liabilities for operating leases as of December 31, 2019 were as follows:

| | Amount |
|------------------------------------|------------|
| 2020 | \$ 25.7 |
| 2021 | 20.7 |
| 2022 | 16.1 |
| 2023 | 10.6 |
| 2024 | 8.2 |
| 2025 and thereafter | 7.6 |
| Total lease payments | 88.9 |
| Less: Interest | (8.4) |
| Present value of lease liabilities | \$ 80.5 |
| As of December 31, 2019 | |
| Accrued liabilities | \$ 22.6 |
| Noncurrent lease liabilities | 57.9 |
| Total | \$ 80.5 |

Rent expense for facilities in use and equipment was \$25.1 million and \$27.4 million for the years ended December 31, 2018 and 2017, respectively.

Disclosures related to periods prior to adoption of ASU 2016-02

Future minimum rental commitments under non-cancellable operating leases as of December 31, 2018 were expected to be as follows:

| Year ended December 31 | Amount |
|------------------------|-------------|
| 2019 | \$ 26.4 |
| 2020 | 22.6 |
| 2021 | 16.6 |
| 2022 | 10.9 |
| 2023 | 8.7 |
| 2024 and thereafter | 16.3 |
| Total | \$ 101.5 |

Note 8. Accounts Receivable

Transactions affecting the allowances for doubtful accounts receivable during the years ended December 31, 2019, 2018 and 2017 were as follows:

| | 2019 | 2018 | 2017 |
|-------------------------------|-----------|-----------|-----------|
| Balance, beginning of year | \$ 7.9 | \$ 7.3 | \$ 6.4 |
| Provisions charged to expense | 3.2 | 4.9 | 3.9 |
| Write-offs and other | (3.4) | (4.3) | (3.0) |
| Balance, end of year | \$ 7.7 | \$ 7.9 | \$ 7.3 |

Note 9. Inventories

The components of the Company's inventories, net of excess and obsolescence reserves for raw materials, at December 31, 2019 and 2018 were as follows:

| | 2019 | 2018 |
|--|---------|------------|
| Raw materials and manufacturing supplies | \$ 3.9 | \$ 4.0 |
| Work in process | | 8.1 |
| Total | \$ 11.1 | \$ 12.1 |

Note 10. Property, Plant and Equipment

The components of the Company's property, plant and equipment at December 31, 2019 and 2018 were as follows:

| | 2019 | 2018 |
|--------------------------------|---------|------------|
| Land | \$ 0.3 | \$ 10.0 |
| Buildings | 26.8 | 36.2 |
| Machinery and equipment | | 106.3 |
| | 139.0 | 152.5 |
| Less: Accumulated depreciation | (121.5) | (120.3) |
| Total | \$ 17.5 | \$ 32.2 |

During the years ended December 31, 2019, 2018 and 2017, depreciation expense was \$7.7 million, \$7.5 million and \$7.0 million, respectively.

Assets Held for Sale—As of December 31, 2019, the Company had one real estate property, primarily consisting of land and an office building, held for sale with a carrying value of \$5.6 million.

Sale of Real Estate—On September 27, 2019, the Company entered into a sale-leaseback agreement in which it sold a building and land at fair market value for proceeds of \$30.6 million, and entered into an operating lease of the property through September 2029 with the option to terminate after three years. The Company recorded a net gain of \$19.2 million on the sale of the property for the year ended December 31, 2019, which is reflected in other operating income in the consolidated statements of operations and is included within the U.S. segment.

Note 11. Investments

The carrying value of the Company's investments in equity securities was \$25.2 million and \$22.1 million as of December 31, 2019 and December 31, 2018, respectively. In the third quarter of 2019, the Company acquired a 6.3% interest in a private company for \$2.3 million. The Company measures its equity securities that do not have a readily determinable fair value, at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. The Company performs an assessment on a quarterly basis to determine whether triggering events for impairment exist and to identify any observable price changes. In the fourth quarter of 2019, the Company recorded a non-cash impairment charge of \$2.0 million to impair the entire balance of one of its investments in equity securities, which is included in restructuring, impairment and other charges-net, in the consolidated statements of operations.

The Company received proceeds of \$12.8 million and \$3.1 million from the sale of certain equity securities in 2019 and 2018, respectively. The following table summarizes realized and unrealized gains on the equity securities recorded in investment and other income in the consolidated statements of operations for the years ended December 31, 2019 and 2018:

| | 2019 | | 2018 |
|---|---------|----|-------|
| Gain on equity investments | \$ 13.6 | \$ | 11.8 |
| Less: net gain recognized on equity securities sold | (6.8 |) | (2.4) |
| Unrealized net gain recognized on equity securities still held at the | | | |
| reporting date | \$ 6.8 | \$ | 9.4 |

Refer to Note 4, *Acquisitions and Dispositions*, for further details regarding the determination of the fair value of the Company's previously held investment in eBrevia.

Note 12. Accrued Liabilities

The components of the Company's accrued liabilities at December 31, 2019 and 2018 were as follows:

| | 2 | 019 | 2018 |
|------------------------------|----|-------|-------------|
| Employee-related liabilities | \$ | 56.9 | \$ 63.3 |
| Short-term lease liabilities | | 22.6 | |
| Customer-related liabilities | | 16.7 | 16.1 |
| Accrued interest payable | | 5.7 | 5.8 |
| Income taxes payable | | 2.7 | 12.4 |
| Restructuring liabilities | | 2.0 | 1.4 |
| Other | | 14.4 | 27.0 |
| Total accrued liabilities | \$ | 121.0 | \$ 126.0 |

Employee-related liabilities consist primarily of sales commission, incentive compensation as well as employee benefit and payroll accruals. Customer-related liabilities consist primarily of deferred revenue, progress billings and volume discount accruals. Other accrued liabilities include miscellaneous operating accruals and other tax liabilities.

Note 13. Commitments and Contingencies

As of December 31, 2019, the Company had commitments of approximately \$32.7 million for outsourced services, primarily relating to information technology, professional, maintenance and other services as well as \$5.8 million of miscellaneous other obligations. The Company has contractual commitments of \$1.9 million for severance payments related to employee restructuring activities.

Litigation

From time to time, the Company's customers and others file voluntary petitions for reorganization under United States bankruptcy laws. In such cases, certain pre-petition payments received by the Company from these parties could be considered preference items and subject to return. In addition, the Company may be party to certain litigation arising in the ordinary course of business. Management believes that the final resolution of these preference items and litigation will not have a material effect on the Company's consolidated results of operations, financial position or cash flows.

Note 14. Retirement Plans

Subsequent to the Separation, certain pension plan liabilities and assets were transferred from RRD to the Company upon the legal split of those plans.

The Company's primary defined benefit plan is frozen. No new employees are permitted to enter the Company's frozen plan and participants will earn no additional benefits. Benefits are generally based upon years of service and compensation. These defined benefit retirement income plans are funded in conformity with the applicable government regulations. The Company funds at least the minimum amount required for all funded plans using actuarial cost methods and assumptions acceptable under government regulations.

In the third quarter of 2019, the Company communicated to certain former employees the option to receive a lump-sum pension payment. Payments to certain participants who elected to receive a lump-sum pension payment were funded from existing pension plan assets and constituted a complete settlement of pension liabilities with respect to these participants. As a result, plan assets and plan liabilities were remeasured during the fourth quarter of 2019, resulting in a net actuarial loss of \$6.4 million recorded within accumulated other comprehensive loss, and a \$3.9 million non-cash pension settlement charge recorded within net investment and other income during the year ended December 31, 2019.

The annual income and expense amounts relating to the pension plan are based on calculations which include various actuarial assumptions including, mortality expectations, discount rates and expected long-term rates of return. The Company reviews its actuarial assumptions on an annual basis as of December 31 (or more frequently if a significant event requiring remeasurement occurs, such as a settlement) and modifies the assumptions based on current rates and trends when it is appropriate to do so. The effects of modifications are recognized immediately on the consolidated balance sheets, but are amortized into operating earnings over future periods, with the deferred amount recorded in accumulated other comprehensive loss. Total pension expense (income) was \$1.8 million, \$(3.2) million and \$(3.3) million in 2019, 2018 and 2017, respectively, which is included within investment and other income in the consolidated statement of operations.

During the year ended December 31, 2019, the Company used the Society of Actuaries Pri-2012 base rate and MP-2019 mortality tables in the calculation of the Company's U.S. pension plan obligations.

The Company made cash contributions of \$0.9 million and \$0.1 million to its pension and other postretirement benefit plans, respectively, during the year ended December 31, 2019. The Company expects to make cash contributions of approximately \$1.3 million and \$0.1 million to its pension and other postretirement benefit plans, respectively, in 2020.

The pension plan obligations are calculated using generally accepted actuarial methods and are measured as of December 31. Actuarial gains and losses for frozen plans are amortized using the corridor method over the average remaining expected life of active plan participants.

The components of the estimated net periodic benefit cost/(income) for DFIN's pension plans for the years ended December 31, 2019, 2018 and 2017 were as follows:

| | | ion Benefits | ts | | | |
|---|------------|--------------|--------|----|--------|--|
| | 2019 | | 2018 | | 2017 | |
| Interest cost | \$ 10.9 | \$ | 10.3 | \$ | 10.6 | |
| Expected return on plan assets | (14.8) | | (16.0) | | (16.0) | |
| Amortization of actuarial loss | 1.8 | | 2.5 | | 2.1 | |
| Settlements | 3.9 | | | | | |
| Net periodic benefit cost (income) | \$ 1.8 | \$ | (3.2) | \$ | (3.3) | |
| Weighted average assumption used to calculate net periodic benefit expense: | | | | | | |
| Discount rate | 3.3% | ò | 3.7% | ó | 4.2% | |
| Expected return on plan assets | 6.3% | ò | 6.8% | ó | 7.0% | |

Reconciliation of funded status

| _ | Pension | Benef | its | Other Postretin | ent Benefits | | |
|--|---------|-------|--------|-----------------|--------------|-------|--|
| _ | 2019 | | 2018 | 2019 | | 2018 | |
| Benefit obligation at beginning of year\$ | 280.4 | \$ | 309.9 | \$ 1.0 | \$ | 1.2 | |
| Interest cost | 10.9 | | 10.3 | _ | | | |
| Actuarial loss (gain) | 43.3 | | (25.8) | 0.6 | | | |
| Settlements | (12.4) | | _ | | | | |
| Foreign currency translation loss (gain) | | | _ | 0.1 | | (0.1) | |
| Benefits paid | (10.9) | | (14.0) | (0.1) | | (0.1) | |
| Benefit obligation at end of year | 311.3 | \$ | 280.4 | \$ 1.6 | \$ | 1.0 | |
| Fair value of plan assets at beginning of year\$ | 228.9 | \$ | 256.4 | \$ — | \$ | _ | |
| Actual return on assets | 46.2 | | (15.3) | | | _ | |
| Settlements | (12.4) | | | | | | |
| Employer contributions | 0.9 | | 1.8 | 0.1 | | 0.1 | |
| Benefits paid | (10.9) |) | (14.0) | (0.1) | | (0.1) | |
| Fair value of plan assets at end of year | 252.7 | \$ | 228.9 | \$ — | \$ | _ | |
| Under funded status at end of year | (58.6) | \$ | (51.5) | \$ (1.6) | \$ | (1.0) | |

The accumulated benefit obligation for all defined benefit pension and other postretirement benefit plans was \$312.9 million and \$281.4 million at December 31, 2019 and 2018, respectively.

| | Pension Be | enefits | Other Postretirement Benefit | | | | |
|---|-----------------|---------|------------------------------|-------|--|--|--|
| | 2019 | 2018 | 2019 | 2018 | | | |
| Accrued benefit cost (included in accrued liabilities) | \$ (1.3) \$ | (1.2) | \$ (0.1) \$ | _ | | | |
| Pension and other postretirement benefits plan liabilities | (57.3) | (50.3) | (1.5) | (1.0) | | | |
| Net liabilities recognized in the Consolidated Balance Sheets | \$ (58.6) \$ | (51.5) | <u>\$ (1.6)</u> <u>\$</u> | (1.0) | | | |

The amounts included in accumulated other comprehensive loss in the consolidated balance sheets, excluding tax effects, that have not been recognized as components of net periodic benefit cost at December 31, 2019 and 2018 were as follows:

| | Pension Ben | efits | Other Postretirement Benefi | | | | | |
|---|-----------------|--------|-----------------------------|--------|--|--|--|--|
| | 2019 | 2018 | 2019 | 2018 | | | | |
| Accumulated other comprehensive (loss) income | | | | | | | | |
| Net actuarial (loss) gain | \$ (96.7) \$ | (90.7) | \$ (0.5) | \$ 0.1 | | | | |
| Total | \$ (96.7) \$ | (90.7) | <u>\$ (0.5)</u> | \$ 0.1 | | | | |

The pre-tax amounts recognized in other comprehensive income (loss) in 2019, 2018, and 2017 as components of net periodic costs were as follows:

| | Pension Benefits | | | | | Other Postretirement Benef | | | | | ts |
|------------------------------------|----------------------|----|-------|----|-------|----------------------------|-------------|-----|----|----|-----|
| | 2019 | | 2018 | | 2017 | | 2019 | 201 | 18 | 2 | 017 |
| Amortization of: | | | | | | | | | | | |
| Net actuarial loss | \$ 1.8 | \$ | 2.5 | \$ | 2.1 | \$ | — \$ | 3 | | \$ | |
| Amounts arising during the period: | | | | | | | | | | | |
| Settlements | 3.9 | | | | | | | | | | |
| Net actuarial loss | (11.8) | | (5.6) | | (2.7) | | (0.6) | | | | |
| Total | \$ (6.1) | \$ | (3.1) | \$ | (0.6) | \$ | (0.6) \$ | 3 | | \$ | |

Actuarial gains and losses in excess of 10.0% of the greater of the projected benefit obligation or the market-related value of plan assets were recognized as a component of net periodic benefit costs over the average remaining service period of a plan's active employees. As a result of the plan freezes, the actuarial gains and losses are recognized as a component of net periodic benefit costs over the average remaining life of a plan's active employees.

The amounts in accumulated other comprehensive loss that are expected to be recognized as components of net periodic benefit cost in 2020 are shown below:

| | Pension |
|--------------------|--------------|
| | Benefits |
| Amortization of: | |
| Net actuarial loss | \$ 3.1 |
| Total | \$ 3.1 |

The weighted average assumptions used to determine the benefit obligation at the measurement date were as follows:

| | Pension Benefits | | Other Postretirement Benefits | | |
|---------------|------------------|------|-------------------------------|------|--|
| | 2019 | 2018 | 2019 | 2018 | |
| Discount rate | 3.2% | 4.4% | 3.0% | 3.5% | |

The following table provides a summary of under-funded or unfunded pension benefit plans with projected benefit obligations in excess of plan assets as of December 31, 2019 and 2018:

| | Pension Benefits | | | |
|------------------------------|------------------|-------|----|-------|
| | | 2019 | | 2018 |
| Projected benefit obligation | \$ | 311.3 | \$ | 280.4 |
| Fair value of plan assets | | 252.7 | | 228.9 |

As discussed above, the Company's defined benefit plan is frozen and no new employees are permitted to enter the plan. Participants do not earn additional service benefits. Consequently, the projected benefit obligation and accumulated benefit obligation are the same amounts.

Benefit payments are expected to be paid as follows:

| | | | Other |
|-----------|------------|----|--------------|
| | Pension | Po | stretirement |
| | Benefits | | Benefits |
| 2020 | \$ 17.2 | \$ | 0.1 |
| 2021 | 18.2 | | 0.1 |
| 2022 | 19.0 | | 0.1 |
| 2023 | 18.2 | | 0.1 |
| 2024 | 18.2 | | 0.1 |
| 2025-2029 | 93.4 | | 0.6 |

Plan Assets

The Company's U.S. pension plans are frozen and the Company has a risk management approach for its U.S. pension plan assets. The overall investment objective of this approach is to reduce the risk of significant decreases in the plan's funded status by allocating a larger portion of the plan's assets to investments expected to hedge the impact of interest rate risks on the plan's obligation. The expected long-term rate of return for plan assets is based upon many factors including asset allocations, historical asset returns, current and expected future market conditions, risk and active management premiums. The target asset allocation percentage as of December 31, 2019, for the primary U.S. pension plan was approximately 50.0% for return seeking investments and approximately 50.0% for fixed income investments.

The fair values of the Company's pension plan assets at December 31, 2019 and 2018, by asset category were as follows:

| | December 31, 2019 | | | | | |
|---------------------------|-------------------|-------|----|----------|----|---------|
| Asset Category | | Total | | Level 1 | | Level 2 |
| Cash and cash equivalents | \$ | 1.4 | \$ | 0.1 | \$ | 1.3 |
| Real estate funds | | 10.1 | | | | 10.1 |
| Assets measured at NAV | | 241.2 | | | | |
| Total | \$ | 252.7 | \$ | 0.1 | \$ | 11.4 |
| | December 31, 2018 | | | | | |
| Asset Category | | Total | | Level 1 | | Level 2 |
| Cash and cash equivalents | \$ | 1.5 | \$ | 1.2 | \$ | 0.3 |
| Real estate funds | | 9.5 | | | | 9.5 |
| Assets measured at NAV | | 217.9 | | <u>—</u> | | |
| Total | \$ | 228.9 | \$ | 1.2 | \$ | 9.8 |

The Company segregated its plan assets by the following major categories and levels for determining their fair value as of 2019:

Cash and cash equivalents— Carrying value approximates fair value. As such, these assets were classified as Level 1. The Company also invests in certain short-term investments which are valued using the amortized cost method. As such, these assets were classified as Level 2.

Real estate funds— Real estate fund assets are valued by third-party appraisers utilizing valuation approaches based upon current cost to reproduce, discounted cash flows or relative sales value of comparable properties. Key inputs and assumptions used to determine fair value include rental revenue and expenses, revenue and expense growth rates, terminal capitalization rates and discount rates. As the value of these assets was determined based on observable inputs obtained by third parties, the Company classified these assets as Level 2.

Assets measured at NAV - The Company invests in certain funds that are valued at calculated net asset value per share ("NAV"), but are not quoted on active markets such as certain equity common funds, fixed income funds, hedge funds and corporate bond funds. The Company believes that the NAV is representative of fair value at the reporting date, as there are no significant restrictions on redemption of these investments or other reasons to indicate that the investment would be redeemed at an amount different than the NAV.

For Level 2 plan assets, management reviews significant investments on a quarterly basis including investigation of unusual fluctuations in price or returns and obtaining an understanding of the pricing methodology to assess the reliability of third-party pricing estimates.

The valuation methodologies described above may generate a fair value calculation that may not be indicative of net realizable value or future fair values. While the Company believes the methodologies used are appropriate, the use of different methodologies or assumptions in calculating fair value could result in different amounts.

Employer 401(k) Savings Plan — For the benefit of most of its U.S. employees, the Company maintains a defined contribution retirement savings plan (401(k)) that is intended to be qualified under Section 401(a) of the Internal Revenue Code. Under this plan, employees may contribute a percentage of eligible compensation on both a before-tax and after-tax basis. The Company provided a 401(k) discretionary match to participants in 2018 and 2017, payable to participants' accounts in the first quarter of 2019 and in the first quarter of 2018, respectively. The total expense attributable to the match was \$1.1 million and \$3.4 million for the years ended December 31, 2018 and 2017, respectively. The Company does not expect to provide a 401(k) discretionary match to participants for the year ended December 31, 2019 in 2020.

Note 15. Income Taxes

Income taxes have been based on the following components of earnings from operations before income taxes for the years ended December 31, 2019, 2018 and 2017:

| | 2019 | 2018 | 2017 |
|------------------------------|------------|-------------|------------|
| U.S. | \$ 54.1 | \$ 69.3 | \$ 49.1 |
| Foreign | (2.0) | 33.4 | 7.1 |
| Earnings before income taxes | \$ 52.1 | \$ 102.7 | \$ 56.2 |

The components of income tax expense (benefit) from operations for the years ended December 31, 2019, 2018 and 2017 were as follows:

| | 2019 | 2018 | 2017 |
|--------------------------------|---------|---------|---------|
| Current: | | | |
| U.S. Federal | \$ 7.7 | \$ 6.9 | \$ 12.5 |
| U.S. State and Local | 2.3 | 5.3 | 5.1 |
| Foreign | 2.0 | 6.3 | 3.4 |
| Current income tax expense | | 18.5 | 21.0 |
| Non-Current: | | | |
| U.S. Federal | _ | 0.1 | 12.5 |
| U.S. State and Local | | | 0.6 |
| Non-current income tax expense | | 0.1 | 13.1 |
| Deferred: | | | |
| U.S. Federal | 2.3 | 6.8 | 13.3 |
| U.S. State and Local | 0.4 | 2.9 | (0.1) |
| Foreign | (0.2) | 0.8 | (0.8) |
| Deferred income tax expense | 2.5 | 10.5 | 12.4 |
| Total | \$ 14.5 | \$ 29.1 | \$ 46.5 |

The following table outlines the reconciliation of differences between the U.S. Federal statutory tax rate and the Company's worldwide effective income tax rate:

| | 2019 | 2018 | 2017 |
|--|-------|-------|-------|
| Federal statutory tax rate | 21.0% | 21.0% | 35.0% |
| Provision to return | (7.2) | | |
| State and local income taxes, net of U.S. federal income tax benefit | 6.8 | 6.5 | 5.7 |
| Changes in valuation allowances | 6.4 | 0.5 | 0.5 |
| Non-deductible expenses | 4.6 | 1.9 | 3.6 |
| Foreign-derived intangible income | (1.9) | | |
| Credits and incentives | (1.6) | (1.3) | |
| Foreign tax rate differential | (0.8) | 1.1 | (1.3) |
| Tax exempt income and expense | (0.1) | (2.9) | |
| Global intangible low-taxed income provision | | 2.0 | |
| Federal and state transition tax on foreign earnings | | 0.1 | 25.3 |
| Tax Act revaluation of U.S. net deferred tax assets | | (2.2) | 14.8 |
| Other | 0.6 | 1.6 | (0.9) |
| Effective income tax rate | 27.8% | 28.3% | 82.7% |

The effective income tax rate was 27.8% for the year ended December 31, 2019 compared to 28.3% for the year ended December 31, 2018. The 2019 effective income tax rate was impacted by favorable return to provision adjustments primarily related to foreign-derived intangible income, state and local income taxes and income tax credits, partially offset by increases in valuation allowances and non-deductible expenses.

The 2018 effective income tax rate is lower as compared to the 2017 effective income tax rate mainly due to impacts of the changes to U.S. tax legislation as a result of the enactment of the Tax Cuts and Jobs Act (H.R. 1) ("the Tax Act") on December 22, 2017. The 2018 effective income tax rate was impacted by the global intangible low-taxed income ("GILTI") provision, non-deductible expenses and also reflects the tax impact of the sale of the Language Solutions business. Along with the effects of the Tax Act, the 2017 effective income tax rate was impacted by non-deductible expenses incurred by the Company in 2017 which were previously incurred by RRD on behalf of the Company during pre-Separation periods.

As a result of the reduction in the U.S. corporate income tax rate from 35% to 21% effective January 1, 2018, the Company revalued its U.S. deferred tax assets and liabilities as of December 31, 2017. The Company recorded a reduction in the value of its net U.S. deferred tax asset of approximately \$8.2 million, which was recorded as additional deferred income tax expense in the Company's consolidated statement of operations for the year ended December 31, 2017. Due to the transition to a territorial tax system under the Tax Act, the Company was deemed to repatriate its foreign subsidiaries' untaxed accumulated earnings and pay a mandatory U.S. federal tax ("the transition tax") of 15.5% on the portion of the earnings that are in cash and cash equivalents and 8.0% on the portion of earnings that are in non-cash and non-cash equivalent assets. The Company estimated this tax liability (federal and state) to be approximately \$14.2 million which was recorded as income tax expense in the consolidated statement of operations for the year ended December 31, 2017. The impact of the revaluation of deferred tax assets (\$8.2 million) and the transition tax (\$14.2 million) were recorded in the Company's consolidated financial statements for the year ended December 31, 2017 as provisional amounts as the Company was able to reasonably estimate the impact of these items. During the year ended December 31, 2018, the Company recorded a \$0.1 million increase to the deemed repatriation tax liability and a \$2.2 million benefit related to the revaluation of deferred tax assets and liabilities. The adjustments were the result of the Company's completion of the analysis of the impact of the Tax Act including changes in interpretations and assumptions that the Company previously made for the prior year provisional estimates as well as the impact from additional regulatory guidance issued. During the year ended December 31, 2018, the Company also updated its indefinite reinvestment assertion in accordance with SAB 118. There was no financial impact related to the Company's indefinite reinvestment assertion update. As of December 31, 2018, the Company's analysis for the income tax effect of the Tax Act was completed.

As available under the Tax Act, the Company made an election to pay the transition tax liability in installments over eight years. However, since the Company was in a tax overpayment position on its 2017 tax return, the Department of the U.S. Treasury Internal Revenue Service ("IRS") satisfied the full transition tax liability by reducing the overpayment carried forward into the 2018 tax return. Consequently, there is no transition tax payable recorded in the Company's consolidated balance sheet as of December 31, 2019. The Company recorded \$13.1 million of this liability as noncurrent taxes payable and \$1.1 million as current taxes payable in the Company's consolidated balance sheet as of December 31, 2017.

Along with the change to a territorial tax system, the Tax Act created the GILTI provision. The GILTI provision imposes a tax on foreign income in excess of a deemed return on tangible assets of foreign subsidiary corporations. The Company is subject to the GILTI tax for the years ended December 31, 2019 and 2018. The determination of whether the Company is subject to the GILTI provision will be an annual analysis of several factors under the provision, including the amount of foreign income generated by the Company's foreign subsidiaries and whether the Company has income subject to the GILTI tax, which may change from year to year. In January 2018, the FASB released guidance on the accounting for GILTI tax, which allows an accounting policy election for companies to either account for deferred taxes related to GILTI inclusions or to treat any taxes on GILTI inclusions as period costs. The Company has adopted the accounting policy to treat taxes on GILTI inclusions as period costs.

Deferred income taxes

The significant deferred tax assets and liabilities at December 31, 2019 and 2018 were as follows:

| | 2019 | 2018 |
|--|--------------|--------------|
| Deferred tax assets: | | |
| Pension and other postretirement benefit plans liabilities | \$ 16.0 | \$ 15.1 |
| Net operating losses and other tax carryforwards | 10.5 | 9.1 |
| Accrued liabilities | 9.1 | 12.2 |
| Share-based compensation. | 2.3 | 3.0 |
| Allowance for doubtful accounts | 1.8 | 2.2 |
| Interest | _ | 1.4 |
| Other | 2.3 | 0.9 |
| Total deferred tax assets | 42.0 | 43.9 |
| Valuation allowances | (5.2) | (2.1) |
| Total deferred tax assets | \$ 36.8 | \$ 41.8 |
| Deferred tax liabilities: | | |
| Accelerated depreciation | \$ (12.7) | \$ (12.3) |
| Other intangible assets | (10.0) | (12.6) |
| Investments | (3.0) | (3.1) |
| Prepaid assets | (0.3) | (1.4) |
| Lease obligations | | (1.3) |
| Other | (1.8) | (1.6) |
| Total deferred tax liabilities | (27.8) | (32.3) |
| Net deferred tax assets | \$ 9.0 | \$ 9.5 |

The amounts above are included in the consolidated balance sheets as either a net asset or liability on a jurisdiction by jurisdiction basis.

Transactions affecting the valuation allowances on deferred tax assets during the years ended December 31, 2019, 2018 and 2017 were as follows:

| | 2019 | | 2018 | 2017 |
|----------------------------|------|-----|-----------|-----------|
| Balance, beginning of year | \$ | 2.1 | \$ 1.5 | \$ 1.2 |
| Current year expense-net | | 3.1 | 0.7 | 0.3 |
| Foreign exchange and other | | | (0.1) | |
| Balance, end of year | \$ | 5.2 | \$ 2.1 | \$ 1.5 |

As of December 31, 2019, the Company had domestic and foreign net operating loss deferred tax assets of approximately \$10.5 million (\$9.1 million at December 31, 2018), of which \$9.2 million expires between 2020 and 2039. Limitations on the utilization of these deferred tax assets may apply. The Company has provided valuation allowances to reduce the carrying value of certain deferred tax assets, as management has concluded that, based on the weight of available evidence, it is more likely than not that the deferred tax assets will not be fully realized.

Earnings generated by a foreign subsidiary are presumed to ultimately be transferred to the parent company. Therefore, the establishment of deferred taxes may be required with respect to the excess of the investment value for financial reporting over the tax basis of investments in those foreign subsidiaries (also referred to as book-over-tax outside basis differences). A company may overcome this presumption and forgo recording a deferred tax liability in its financial statements if it can assert that management has the intent and ability to indefinitely reinvest the earnings of its foreign subsidiaries. Prior to the year ended December 31, 2017, the Company had not provided deferred U.S., foreign or local income taxes on the book-over-tax outside basis differences of its foreign subsidiaries because such excess had been considered to be indefinitely reinvested in the local country businesses. As a result of the transition tax incurred pursuant to the Tax Act, the Company now has the ability to repatriate any previously taxed foreign cash associated with the foreign earnings subjected to U.S. tax to the U.S. parent with minimal additional tax consequences. Due to the changes under the Tax Act, the Company updated its assertion in 2018 related to indefinitely reinvested in operations outside of the U.S. with the exception of the previously taxed foreign cash already subject to U.S. tax. The Company began repatriating earnings up to its net earnings previously subject to U.S. tax during 2019.

Uncertain tax positions

Changes in the Company's unrecognized tax benefits at December 31, 2019, 2018 and 2017 were as follows:

| | 2019 | 2018 | 2017 |
|---|-----------|-----------|-----------|
| Balance at beginning of year | \$ 0.3 | \$ 0.3 | \$ 1.9 |
| Additions for tax positions of the current year | 0.1 | 0.2 | _ |
| Additions for tax positions of prior years | 0.1 | 0.1 | |
| Settlements during the year | | (0.1) | (1.4) |
| Releases | | (0.2) | (0.2) |
| Balance at end of year | \$ 0.5 | \$ 0.3 | \$ 0.3 |

As of December 31, 2019, 2018 and 2017, the Company had unrecognized tax benefits of \$0.5 million, \$0.3 million and \$0.3 million, respectively. Unrecognized tax benefits of \$0.5 million as of December 31, 2019, if recognized, would have decreased income taxes and the corresponding effective income tax rate and increased net earnings. This potential impact on net earnings reflects the reduction of these unrecognized tax benefits, net of certain deferred tax assets and the federal tax benefit of state income tax items.

As of December 31, 2019, no portion of the total amount of unrecognized tax benefits is expected to decrease within twelve months due to the resolution of audits or expirations of statutes of limitations related to U.S. federal, state or international tax positions.

The Company classifies interest expense and any penalties related to income tax uncertainties as a component of income tax expense. The total interest expense/(benefit), net of tax benefits, related to tax uncertainties recognized in the consolidated statements of operations was de minimis for the years ended December 31, 2019 and 2018, and (\$0.2) million for the year ended December 31, 2017. There were no benefits from the reversal of accrued penalties for the years ended December 31, 2019, 2018 and 2017. There were no accrued interest liabilities or accrued penalties related to income tax uncertainties at December 31, 2019 and 2018.

The Company has tax years from 2009 that remain open and subject to examination by certain U.S. state taxing authorities and/or certain foreign tax jurisdictions. There are no U.S. federal income tax years prior to the short period ending December 31, 2016 subject to IRS examination. All U.S. federal income tax years including and subsequent to the short period ending December 31, 2016 remain open and subject to IRS examination.

Note 16. Debt

The Company's debt as of December 31, 2019 and 2018 consisted of the following:

| | Dec | December 31, 2019 | | ember 31, 2018 |
|---|-----|----------------------|----|-------------------|
| 8.25% senior notes due October 15, 2024 | \$ | 300.0 | \$ | 300.0 |
| Term Loan Credit Facility | | _ | | 71.3 |
| Unamortized debt issuance costs | | (4.0) | | (8.6) |
| Total long-term debt | \$ | 296.0 | \$ | 362.7 |

Maturities—At December 31, 2019, the Company's long-term debt was comprised of the 8.25% senior unsecured notes ("Notes"), which are due in full in 2024.

Fair Value—The fair value of the senior notes, which was determined using the market approach based upon interest rates available to the Company for borrowings with similar terms and maturities, were determined to be Level 2 under the fair value hierarchy. The fair value of the Company's senior notes was \$308.4 million and \$298.1 million at December 31, 2019 and 2018, respectively.

8.25% Senior Notes Due 2024—The Company's Notes, with interest payable semi-annually on April 15 and October 15, were issued pursuant to an indenture where certain wholly-owned domestic subsidiaries of the Company guarantee the Notes (the "Guarantors"). The Notes are jointly and severally guaranteed, on an unsecured basis, by the Guarantors, which are comprised of each of the Company's existing and future direct and indirect wholly-owned U.S. subsidiaries that guarantee the Company's obligations under the Credit Facilities. The Notes are not guaranteed by the Company's foreign subsidiaries or unrestricted subsidiaries. The Notes and the related guarantees will be the Company and the Guarantors', respective, senior unsecured obligations and will rank equally in right of payment to all present and future subordinated debt, and effectively subordinated in right of payment to any of the Company and the Guarantors' secured debt, to the extent of the value of the assets securing such debt. The indenture governing the Notes contains certain covenants applicable to the Company and its restricted subsidiaries, including limitations on: (1) liens; (2) indebtedness; (3) mergers, consolidations and acquisitions; (4) sales, transfers and other dispositions of assets; (5) loans and other investments; (6) dividends and other distributions, stock repurchases and redemptions and other restricted payments; (7) restrictions affecting subsidiaries; (8) transactions with affiliates; and (9) designations of unrestricted subsidiaries. Each of these covenants is subject to important exceptions and qualifications.

Credit Agreement—On September 30, 2016, in connection with the Separation, the Company entered into a Credit Agreement (the "Credit Agreement") by and among the Company, the lenders party thereto from time to time and JPMorgan Chase Bank, N.A., as administrative agent. The Credit Agreement provides for a \$350.0 million senior secured term loan B facility (the "Term Loan Credit Facility") and a \$300.0 million senior secured revolving credit facility (the "Revolving Facility", and, together with the Term Loan Credit Facility, the "Credit Facilities"). The Credit Agreement contains a number of covenants, including a minimum Interest Coverage Ratio and a maximum Leverage Ratio, as defined in and calculated pursuant to the Credit Agreement, that, in part, restrict the Company's ability to incur additional indebtedness, create liens, engage in mergers and consolidations, make restricted payments and dispose of certain assets. The Credit Agreement generally allows annual dividend payments of up to \$20.0 million in the aggregate.

Term Loan Credit Facility—During the year ended December 31, 2019, the Company paid in full the remaining balance of the Term Loan Credit Facility of \$72.5 million. As a result of the transaction, the Company recognized a pre-tax loss on extinguishment of debt of \$4.1 million for the year ended December 31, 2019, related to unamortized debt issuance costs and the original issuance discount, which is recorded within interest expense, net, in the consolidated statements of operations.

Revolving Credit Facility—On December 18, 2018, the Company entered into a second amendment to the Credit Agreement which extended the maturity date of the Revolving Facility to December 18, 2023, reduced the interest rate margin percentages and facility fees applicable to the Revolving Facility, increased the allowable annual dividends from \$15.0 million to \$20.0 million in the aggregate and modified the financial maintenance and negative covenants in the Credit Agreement. As of December 31, 2019, there were no outstanding borrowings under the Revolving Facility. The weighted average interest rate on borrowings under the Revolving Facility was 5.0% at both December 31, 2019 and 2018.

As of December 31, 2019, the Company had \$3.4 million in outstanding letters of credit and bank guarantees, of which none reduced the availability under the Revolving Facility

The following table summarizes interest expense included in the consolidated statements of operations:

| | 2019 | 2018 | 2017 |
|---|------------|------------|------------|
| Interest incurred | \$ 34.3 | \$ 37.1 | \$ 43.5 |
| Loss on debt extinguishment | 4.1 | _ | _ |
| Less: interest capitalized as property, plant and equipment | (0.3) | (0.4) | (0.6) |
| Interest expense, net. | \$ 38.1 | \$ 36.7 | \$ 42.9 |

Note 17. Earnings per Share

Basic earnings per share is calculated by dividing net earnings by the weighted average number of common shares outstanding for the period. In computing diluted earnings per share, basic earnings per share is adjusted for the assumed issuance of all potentially dilutive share-based awards, including stock options, RSUs, PSUs and restricted stock.

The reconciliation of the numerator and denominator of the basic and diluted earnings per share calculation and the anti-dilutive share-based awards for the years ended December 31, 2019, 2018 and 2017, were as follows.

| | 2019 | | 2019 2018 | | 2017 |
|--|------|------|-----------|------|------------|
| Net earnings per share: | | | | | |
| Basic | \$ | 1.10 | \$ | 2.18 | \$ 0.29 |
| Diluted | | 1.10 | | 2.16 | 0.29 |
| Numerator: | | | | | |
| Net earnings | \$ | 37.6 | \$ | 73.6 | \$ 9.7 |
| Denominator: | | | | | |
| Weighted average number of common shares outstanding | | 34.1 | | 33.8 | 33.1 |
| Dilutive awards | | 0.2 | | 0.2 | 0.2 |
| Diluted weighted average number of common shares outstanding | | 34.3 | ' | 34.0 | 33.3 |
| Weighted average number of anti-dilutive share-based awards: | | | | | |
| Restricted stock units | | 0.7 | | 0.3 | 0.2 |
| Stock options | | 0.8 | | 0.6 | 0.3 |
| Total | | 1.5 | | 0.9 | 0.5 |

Note 18. Share-Based Compensation

The Company's share-based compensation plan under which it may grant future awards, the Donnelley Financial Solutions, Inc. Amended and Restated 2016 Performance Incentive Plan (as amended, the "2016 PIP"), was approved by the Board of Directors (the "Board") to provide incentives to key employees of the Company. Awards under the 2016 PIP may include, cash or stock bonuses, stock options, stock appreciation rights, restricted stock or RSUs. In addition, non-employee members of the Board may receive awards under the 2016 PIP. On May 30, 2019, the Board authorized 3.4 million additional shares of common stock for issuance under the 2016 PIP. At December 31, 2019, there were 3.3 million remaining shares of common stock authorized and available for grant under the 2016 PIP.

For all share-based awards granted to employees and directors, including stock options, RSUs, PBRS and PSUs, the Company recognizes compensation expense based on estimated grant date fair values as well as certain assumptions as of the grant date, if applicable. The Company estimates the number of awards expected to vest based, in part, on historical forfeiture rates and also based on management's expectations of employee turnover within the specific employee groups receiving each type of award. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods, if actual forfeitures differ from those estimates. The Company recognizes compensation costs for RSUs expected to vest, on a straight-line basis over the requisite service period of the award, which is generally the vesting term of three years. Compensation expense for PBRS awards granted in 2016, which vest on a graded basis, is recognized utilizing a graded vesting schedule. Compensation expense for PBRS awards granted in 2017 and thereafter, which cliff vest, is recognized on a straight-line basis over the performance period of the award. The Company recognizes compensation costs for PSUs, which cliff vest, on a straight-line basis over the performance period of the award. Compensation expense for stock options is recognized on a straight-line basis over the requisite service period of the award, which is generally the vesting term of four years.

The stock options, RSUs, PBRS and PSUs granted during 2017, 2018, and 2019 are subject to forfeiture upon termination of employment prior to vesting, subject in some cases to early vesting upon specified events, including death or permanent disability of the grantee or a change in control of the Company. In addition, upon a change in control of the Company, PBRS and PSUs will be measured at 100% attainment of the target performance metrics and will remain subject to time based vesting until the end of the vesting period; provided that the award will vest in full if, within three months prior to or two years after the date of the change in control of the Company, the grantee's employment is terminated without cause by the Company or for good reason by the grantee.

Total compensation expense related to all share-based compensation plans was \$8.9 million, \$9.2 million and \$6.8 million for years ended December 31, 2019, 2018 and 2017, respectively. The income tax benefit related to share-based compensation expense was \$1.9 million, \$2.5 million and \$3.0 million for the years ended December 31, 2019, 2018 and 2017, respectively. As of December 31, 2019, \$12.0 million of total unrecognized compensation expense related to share-based compensation awards is expected to be recognized over a weighted-average period of 1.9 years.

Stock Options

The fair value of each stock option award was estimated on each grant date using the Black-Scholes option pricing model. The Company used the following methods to determine its underlying assumptions:

- Expected volatility was estimated based on a weighted-average of historical volatilities for the Company's peer group
- The risk-free interest rate was based on the U.S Treasury yield curve in effect on the date of grant
- The expected term of options granted was based on the simplified method of using the mid-point between the vesting term and the original contractual term
- The expected dividend yield was based on the Company's current dividend rate

The following table summarizes the annual weighted-average assumptions:

| _ | 2019 | 2018 | 2017 |
|-------------------------|--------|--------|--------|
| Expected volatility | 27.47% | 27.75% | 30.71% |
| Risk-free interest rate | 2.58% | 2.71% | 2.17% |
| Expected life (years) | 6.25 | 6.25 | 6.25 |
| Expected dividend yield | 0.00% | 0.00% | 0.00% |

The weighted-average fair value of options granted during the years ended December 31, 2019, 2018 and 2017 was \$4.67, \$5.83, and \$7.77, respectively. There were no options exercised for the year ended December 31, 2019. The total intrinsic value of options exercised was \$1.0 million, \$0.1 million for the years ended December 31, 2018 and 2017, respectively.

Stock option awards outstanding as of December 31, 2018 and December 31, 2019, and changes during the year ended December 31, 2019, were as follows:

| | | | | Weighted Average | | |
|--|---------------------------------------|--|-------|---|----|--------------------------------------|
| | Shares Under Option (thousands) | Weighted Average Exercise Price | | Remaining Contractual Term (years) | | Aggregate Intrinsic Value (millions) |
| Outstanding at December 31, 2018 | 635 | \$ | 21.44 | 7.2 | \$ | |
| Granted | 196 | | 14.15 | 9.2 | | |
| Cancelled/forfeited/expired | (35) | | | | | |
| Outstanding at December 31, 2019 | 796 | | 19.83 | 6.9 | | _ |
| Vested and expected to vest at December 31, 2019 | 766 | \$ | 19.93 | 6.8 | | |
| Exercisable at December 31, 2019 | 305 | \$ | 23.95 | 4.4 | _ | |

As of December 31, 2019, \$2.0 million of unrecognized compensation expense related to stock options is expected to be recognized over a weighted average period of 2.3 years.

Restricted Stock Units

The fair value of RSUs was determined based on the Company's stock price on the grant date. The weighted-average grant date fair value of RSUs granted during the years ended December 31, 2019, 2018 and 2017 was \$13.94, \$17.53 and \$22.41, respectively.

RSUs outstanding as of December 31, 2018 and December 31, 2019, and changes during the year ended December 31, 2019, were as follows:

| | Shares (Thousands) | Weighted Average Grant late Fair Value |
|--------------------------------|-----------------------|--|
| Nonvested at December 31, 2018 | 700 | \$ 19.60 |
| Granted | 614 | 13.94 |
| Vested | (351) | 17.67 |
| Forfeited | (93) | 16.58 |
| Nonvested at December 31, 2019 | 870 | \$ 15.79 |

As of December 31, 2019, \$7.4 million of unrecognized share-based compensation expense related to RSUs are expected to vest over a weighted-average period of 1.9 years.

Performance-Based Restricted Stock

There were no PBRS awards granted during the years ended December 31, 2019 and 2018. Compensation expense for the PBRS awards is currently being recognized based on 80% attainment of the targeted performance metrics for the PBRS awards granted in 2017, or approximately 69,000 shares. The maximum payout of 156,169 shares was achieved as of December 31, 2017 for the PBRS awards granted during 2016, of which 50% vested during the fourth quarter of 2018 and the remaining 50% vested during the fourth quarter of 2019. As of December 31, 2019, there was no unrecognized compensation expense related to PBRS awards.

Performance Share Units

The fair value of PSUs was determined based on the Company's stock price on the grant date. The Company accounts for the 2019 PSU grants as equity awards and continues to assess the classification as an equity award on a quarterly basis throughout the life of the award. The weighted-average grant date fair value of PSUs granted during the years ended December 31, 2019, 2018 and 2017 was \$14.15, \$17.65 and \$22.41, respectively.

PSUs outstanding as of December 31, 2018 and December 31, 2019, and changes during the year ended December 31, 2019, were as follows:

| | Shares | | Weighted erage Grant |
|--------------------------------|-------------|-----|-------------------------|
| | (Thousands) | Dat | e Fair Value |
| Nonvested at December 31, 2018 | 251 | \$ | 18.23 |
| Granted | 329 | | 14.15 |
| Forfeited | (43) | | 17.21 |
| Nonvested at December 31, 2019 | 537 | \$ | 15.81 |

The performance period for the shares awarded in 2019 is January 1, 2019 through December 31, 2021. Distributions under the 2019 awards are payable at the end of the performance period in either common stock or cash at the discretion of the Compensation Committee of the Board. As of December 31, 2019, the total potential payout for 2019 PSU awards ranged from zero to 469,900 shares, based on the achievement of certain performance targets.

Compensation expense for the PSUs granted in 2019, 2018, and 2017 is currently being recognized based on 66%, 43% and 80% attainment of the targeted performance metrics or approximately 204,000, 89,000 and 21,000 shares, net of forfeitures, for each respective period.

As of December 31, 2019, there was \$2.6 million of unrecognized compensation expense related to PSUs, which is expected to be recognized over a weighted average period of 1.9 years.

Note 19. Capital Stock

The Company has 65 million shares of \$0.01 par value common stock authorized for issuance. DFIN's common stock is currently traded under the ticker symbol "DFIN" on the New York Stock Exchange.

The Company has one million shares of \$0.01 par value preferred stock authorized for issuance. The Board may divide the preferred stock into one or more series and fix the redemption, dividend, voting, conversion, sinking fund, liquidation and other rights. The Company has no present plans to issue any preferred stock.

Common Stock Repurchases—On February 4, 2020, the Board authorized a stock repurchase program, under which the Company is authorized to repurchase up to \$25.0 million of its outstanding common stock from time to time in one or more transactions on the open market or in privately negotiated purchases in accordance with all applicable securities laws and regulations and all repurchases in the open market will be made in compliance with Rule 10b-18 under the Exchange Act. The timing and amount of any shares repurchased will be determined by the Company based on its evaluation of market conditions and other factors. Repurchases may also be made under a Rule 10b5-1 plan, which would permit shares to be repurchased when the Company might otherwise be precluded from doing so under insider trading laws. The stock repurchase program will be effective through December 31, 2021, however, it may be suspended or discontinued at any time.

Note 20. Comprehensive Income

The components of other comprehensive income and income tax expense allocated to each component for the years ended December 31, 2019, 2018 and 2017 were as follows:

| | 2019 | | | | | | 2018 | | | | | | 2017 | | | | | |
|------------------------------|------|-------|----|---------------|-----------|-----------|------|-------|-----|-------|----|-------|---------------|-------|---------------|-------|-----|-------|
| | | fore | In | Income Tax | | ne Net of | | efore | Inc | ome | N | et of | Before Tax | | Income Tax | | Ne | t of |
| | 1 | Гах | | | | Tax T | | | | Tax T | | Tax | | | | | Tax | |
| | An | ount | Ex | pense | An | nount | Aı | mount | Exp | ense | An | nount | Amou | ınt | Ex | pense | Am | ount |
| Translation adjustments | \$ | 3.0 | \$ | | \$ | 3.0 | \$ | (5.0) | \$ | — | \$ | (5.0) | \$ | 4.4 | \$ | | \$ | 4.4 |
| Adjustment for net periodic | | | | | | | | | | | | | | | | | | |
| pension plan and other | | | | | | | | | | | | | | | | | | |
| postretirement benefits plan | | | | | | | | | | | | | | | | | | |
| cost | | (6.7) | | (1.8) | | (4.9) | | (3.1) | | (0.9) | | (2.2) | (| (0.6) | | 0.1 | | (0.7) |
| Other comprehensive income | \$ | (3.7) | \$ | (1.8) | <u>\$</u> | (1.9) | \$ | (8.1) | \$ | (0.9) | \$ | (7.2) | \$ | 3.8 | \$ | 0.1 | \$ | 3.7 |

The following table summarizes changes in accumulated other comprehensive loss by component for the years ended December 31, 2019, 2018 and 2017:

| | Pension and Other Postretirement Benefits Plan | Translation | m . 1 |
|--|--|------------------|------------------|
| D. I | Cost | Adjustments | Total |
| Balance at January 1, 2017 | \$ (52.2) | \$ (16.1) | \$ (68.3) |
| Other comprehensive income (loss) before reclassifications | (2.1) | 4.4 | 2.3 |
| Amounts reclassified from accumulated other comprehensive loss | 1.4 | | 1.4 |
| Net change in accumulated other comprehensive loss | (0.7) | 4.4 | 3.7 |
| Balance at December 31, 2017 | \$ (52.9) | <u>\$ (11.7)</u> | <u>\$ (64.6)</u> |
| Other comprehensive (loss) income before reclassifications | (4.0) | (5.0) | (9.0) |
| Amounts reclassified from accumulated other comprehensive loss | 1.8 | | 1.8 |
| Amounts reclassified in accordance with ASU 2018-02 (1) | (10.9) | | (10.9) |
| Net change in accumulated other comprehensive loss | (13.1) | (5.0) | (18.1) |
| Balance at December 31, 2018 | \$ (66.0) | \$ (16.7) | <u>\$ (82.7)</u> |
| Other comprehensive (loss) income before reclassifications | 1.3 | 3.0 | 4.3 |
| Amounts reclassified from accumulated other comprehensive loss | (6.2) | | (6.2) |
| Net change in accumulated other comprehensive loss | (4.9) | 3.0 | (1.9) |
| Balance at December 31, 2019 | <u>\$ (70.9)</u> | <u>\$ (13.7)</u> | <u>\$ (84.6)</u> |

⁽¹⁾ In February 2018, the FASB issued Accounting Standards Update No. 2018-02 "Income Statement—Reporting Comprehensive Income (Topic 220): Reclassification of Certain Income Tax Effects from Accumulated Other Comprehensive Income" ("ASU 2018-02"), which provides entities the option to reclassify tax effects stranded in accumulated other comprehensive income as a result of the Tax Act to retained earnings. The Company early adopted the standard in the fourth quarter of 2018. The impact of the adoption resulted in an increase in accumulated comprehensive loss and an increase in retained earnings of \$10.9 million.

Reclassifications from accumulated other comprehensive loss for the years ended December 31, 2019, 2018 and 2017 were as follows:

| | | | | Classification in the Consolidated |
|--|-----------|-----------|-----------|---------------------------------------|
| | 2019 | 2018 | 2017 | Statements of Operations |
| Amortization of pension and other postretirement | | | | |
| benefits plan cost: | | | | |
| Net actuarial loss | \$ 1.8 | \$ 2.5 | \$ 2.1 | (a) |
| Reclassifications before tax | 1.8 | 2.5 | 2.1 | |
| Income tax expense | 0.5 | 0.7 | 0.7 | |
| Reclassifications, net of tax | \$ 1.3 | \$ 1.8 | \$ 1.4 | |

(a) These accumulated other comprehensive (loss) income components are included in the calculation of net periodic pension and other postretirement benefits plan (income) expense, and recognized in investment and other income in the consolidated statements of operations (see Note 14, Retirement Plans).

Note 21. Segment Information

The Company's segments are summarized below:

United States

The U.S. segment serves capital market and investment market clients in the U.S. by delivering services and products to help create, manage, and deliver, accurate and timely financial communications to investors and regulators. The Company also provides virtual data rooms to facilitate the deal management requirements of capital markets and mergers and acquisitions transactions, and provides data and analytics services that help professionals uncover intelligence from disclosures contained within public filings made with the SEC. The U.S. segment also includes commercial print. In addition, prior to the sale of the Company's Language Solutions business on July 22, 2018, the U.S. segment included language solutions capabilities, through which the Company translated documents and created content in up to 140 different languages for its clients.

International

The International segment includes the Company's operations in Asia, Europe, Canada and Latin America. The international business is primarily focused on working with international capital markets clients on capital markets offerings and regulatory compliance-related activities into or within the United States. In addition, the international segment provided language translation services and shareholder communication services to investment market clients prior to the sale of the Company's Language Solutions business on July 22, 2018, as further disclosed in Note 4, Acquisitions and Dispositions.

Corporate

Corporate consists of unallocated general and administrative activities and associated expenses including, in part, executive, legal, finance, communications and certain facility costs. In addition, certain costs and earnings of employee benefit plans, such as pension and other postretirement benefit plan expense (income) and allocated costs for share-based compensation, are included in Corporate and not allocated to the operating segments.

Information by Segment

The Company has disclosed income (loss) from operations as the primary measure of segment earnings (loss). This is the measure of profitability used by the Company's chief operating decision-maker and is most consistent with the presentation of profitability reported within the consolidated financial statements.

| | Total Sales | Intersegment Sales | Net Sales | Income (Loss) From Operations | Assets of Operations (1) | Depreciation and Amortization (1) | Capital Expenditures (1) |
|------------------------------|-------------|-----------------------|-----------|-------------------------------------|--------------------------|-----------------------------------|-----------------------------|
| Year ended December 31, 2019 | | | | | | | |
| U.S | \$ 768.9 | \$ (7.5) | \$ 761.4 | \$ 113.5 | \$ 704.0 | \$ 41.3 | \$ 44.2 |
| International | 115.8 | (2.5) | 113.3 | (2.3) | 73.7 | 7.6 | 0.3 |
| Total operating segments | 884.7 | (10.0) | 874.7 | 111.2 | 777.7 | 48.9 | 44.5 |
| Corporate | _ | | | (32.7) | 109.2 | 0.7 | 0.3 |
| Total operations | \$ 884.7 | \$ (10.0) | \$ 874.7 | \$ 78.5 | \$ 886.9 | \$ 49.6 | \$ 44.8 |

| | Total Sales | Intersegment Sales | Net Sales | Income (Loss) From Operations | Assets of Operations (1) | Depreciation and Amortization (1) | Capital Expenditures (1) |
|------------------------------|-------------|--------------------|-----------|-------------------------------|--------------------------|-----------------------------------|-----------------------------|
| Year ended December 31, 2018 | | | | | | | |
| U.S | \$ 821.0 | \$ (9.2) | \$ 811.8 | \$ 134.0 | \$ 681.9 | 9 \$ 39.6 | \$ 34.8 |
| International | 153.2 | (2.0) | \$ 151.2 | 31.6 | 77.0 | 5.7 | 1.2 |
| Total operating segments | 974.2 | (11.2) | 963.0 | 165.6 | 759.: | 5 45.3 | 36.0 |
| Corporate | | | | (44.5) | 109.2 | 2 0.5 | 1.1 |
| Total operations | \$ 974.2 | \$ (11.2) | \$ 963.0 | \$ 121.1 | \$ 868. | 7 \$ 45.8 | \$ 37.1 |

| | Total Sales | Intersegment otal Sales Sales | | Income (Loss) From Operations | Assets of Operations (1) | Depreciation and Amortization (1) | Capital Expenditures (1) |
|------------------------------|-------------|-------------------------------|------------|-------------------------------------|--------------------------|--------------------------------------|-----------------------------|
| Year ended December 31, 2017 | | | | | | | |
| U.S | \$ 856.6 | \$ (8.7) | \$ 847.9 | \$ 127.6 | \$ 664.7 | \$ 38.2 | \$ 24.7 |
| International | 160.8 | (3.8) | 157.0 | 7.2 | 90.4 | 6.3 | 1.4 |
| Total operating segments | 1,017.4 | (12.5) | 1,004.9 | 134.8 | 755.1 | 44.5 | 26.1 |
| Corporate | | | | (39.1) | 138.4 | | 1.7 |
| Total operations | \$ 1,017.4 | <u>\$ (12.5)</u> | \$ 1,004.9 | \$ 95.7 | \$ 893.5 | \$ 44.5 | \$ 27.8 |

Corporate assets primarily consisted of the following items at December 31, 2019 and 2018:

| | 2019 | 2018 |
|---|---------|------------|
| Software, net (1) | \$ 52.1 | \$ 46.9 |
| Right-of-use assets | 11.7 | |
| Cash and cash equivalents | 11.2 | 27.2 |
| Deferred income tax assets, net of valuation allowances | 6.3 | 9.1 |

⁽¹⁾ Substantially all the Company's software assets are included within the Corporate segment. Capital expenditures related to software are incurred in the U.S and reflected in the U.S. segment. Software amortization expense is allocated to the U.S. and International segments.

Note 22. Geographic Area and Services and Products Information

The table below presents net sales and long-lived assets by geographic region for the years ended December 31, 2019, 2018 and 2017.

| | U.S. | Europe | Asia | Canada | Other | nsolidated |
|--------------------------------------|-------------------|-----------------|--------------------|-------------------|-----------|------------------------|
| Net sales Long-lived assets (a) | \$ 761.4 178.3 | 34.5 4.2 | \$ 46.8 11.0 | \$ 29.4 1.0 | \$ 2.6 | \$ 874.7 194.5 |
| 2018 Net sales Long-lived assets (a) | \$ 811.8 117.2 | 59.7 3.1 | \$ 55.5 2.4 | \$ 33.4 0.1 | \$ 2.6 | \$ 963.0 122.8 |
| 2017 Net sales Long-lived assets (a) | \$ 847.9 107.2 | 70.6 4.5 | \$ 47.2 1.6 | \$ 36.0 0.6 | \$ 3.2 | \$ 1,004.9 113.9 |

⁽a) Includes net property, plant and equipment, net software and other noncurrent assets. 2019 balances also include right-of-use assets.

The following table summarizes net sales for services and products for the years ended December 31, 2019, 2018 and 2017.

| | 2019 Net Sales | 2018 Net Sales | 2017 Net Sales | | |
|--------------------|-----------------------|-----------------------|-------------------|---------|--|
| Capital Markets | \$ 395.8 | \$ 408.3 | \$ | 396.7 | |
| Investment Markets | 158.2 | 167.4 | | 164.0 | |
| Language Solutions | <u> </u> | 42.3 | | 71.4 | |
| Total services | 554.0 | 618.0 | | 632.1 | |
| Investment Markets | 199.8 | 194.0 | | 217.9 | |
| Capital Markets | 120.9 | 151.0 | | 154.9 | |
| Total products | 320.7 | 345.0 | | 372.8 | |
| Total net sales | \$ 874.7 | \$ 963.0 | \$ | 1,004.9 | |

Note 23. Guarantor Financial Information

As described in Note 16, *Debt*, on September 30, 2016, the Company issued the Notes. The Guarantors of the Notes, Donnelley Financial, LLC and DFS International Holding, Inc., entered into an agreement pursuant to which each agreed to guarantee the Company's obligations under the Notes. All guarantees are full and unconditional and joint and several. The Guarantors are 100% directly owned subsidiaries of the Company.

The guarantee of the Notes by a subsidiary guarantor will be automatically released under certain situations, including upon the sale or disposition of such subsidiary guarantor to a person that is not DFIN or a subsidiary guarantor of the notes, the liquidation or dissolution of such subsidiary guarantor, and if such subsidiary guarantor is released from its guarantee obligations under the Company's Credit Facilities.

The following tables set forth consolidating statements of operations for the years ended December 31, 2019, 2018, and 2017, consolidating statements of financial position as of December 31, 2019 and December 31, 2018, and consolidating statements of cash flows for the years ended December 31, 2019, 2018, and 2017. The principal consolidating adjustments are to eliminate the investment in subsidiaries and intercompany balances and transactions. For purposes of the tables below, the Company is referred to as "Parent" and the Guarantors are referred to as "Guarantor Subsidiaries."

Consolidating Statements of Operations and Comprehensive Income (Loss) Year Ended December 31, 2019

| | Pa | rent | arantor sidiaries | gua | Non- arantor sidiaries | Elin | ninations | Con | solidated |
|---|------------|--------|--------------------------|-----|------------------------------|------|-----------|-----|-----------|
| Services net sales | \$ | | \$ 471.8 | \$ | 88.7 | \$ | (6.5) | \$ | 554.0 |
| Products net sales | | _ | 297.1 | | 27.1 | | (3.5) | | 320.7 |
| Total net sales | | _ | 768.9 | | 115.8 | | (10.0) | | 874.7 |
| Services cost of sales (exclusive of depreciation and amortization) | | _ | 231.5 | | 58.9 | | (5.6) | | 284.8 |
| Products cost of sales (exclusive of depreciation and | | | | | | | | | |
| amortization) | | | 242.4 | | 19.6 | | (4.4) | | 257.6 |
| Total cost of sales | | | 473.9 | | 78.5 | | (10.0) | | 542.4 |
| Selling, general and administrative expenses (exclusive of depreciation and amortization) | | _ | 176.9 | | 28.9 | | _ | | 205.8 |
| Restructuring, impairment and other charges-net | | | 11.4 | | 2.2 | | | | 13.6 |
| Depreciation and amortization | | | 42.0 | | 7.6 | | | | 49.6 |
| Other operating (income) expense | | | (16.5) | | 1.3 | | | | (15.2) |
| Income from operations | | _ | 81.2 | | (2.7) | | _ | | 78.5 |
| Interest expense (income)-net | | 38.9 | (0.1) | | (0.7) | | | | 38.1 |
| Intercompany interest (income) expense-net | | (22.3) | 22.3 | | | | | | |
| Investment and other (income) expense-net | | | (11.8) | | 0.1 | | | | (11.7) |
| Earnings (loss) before income taxes and equity in net | | | | | | | | | |
| income of subsidiaries | | (16.6) | 70.8 | | (2.1) | | | | 52.1 |
| Income tax (benefit) expense | . <u> </u> | (4.2) | 16.9 | | 1.8 | | | | 14.5 |
| Earnings (loss) before equity in net income of | | | | | | | | | |
| subsidiaries | | (12.4) | 53.9 | | (3.9) | | | | 37.6 |
| Equity in net income (loss) of subsidiaries | | 50.0 | (3.9) | - | | - | (46.1) | | <u> </u> |
| Net earnings (loss) | \$ | 37.6 | \$ 50.0 | \$ | (3.9) | \$ | (46.1) | \$ | 37.6 |
| Comprehensive income (loss) | \$ | 35.7 | \$ 45.5 | \$ | (1.3) | \$ | (44.2) | \$ | 35.7 |

Consolidating Statements of Operations and Comprehensive Income (Loss) Year Ended December 31, 2018

| | | | | | | Non- | | | | |
|--|-----|--------|----|----------------------|-----------|-----------------------|-----------|-----------|-----|-----------|
| | Dor | ent | | arantor sidiaries | | arantor osidiaries | Fli | minations | Con | solidated |
| Services net sales | | | \$ | 508.0 | \$ | 116.4 | \$ | (6.4) | \$ | 618.0 |
| Products net sales | + | _ | Ψ | 313.0 | Ψ | 36.8 | Ψ | (4.8) | Ψ | 345.0 |
| Total net sales | | | | 821.0 | _ | 153.2 | _ | (11.2) | | 963.0 |
| Services cost of sales (exclusive of depreciation and | | | | 021.0 | | 100.= | | (11.2) | | , 00.0 |
| amortization) | | | | 258.4 | | 76.6 | | (6.2) | | 328.8 |
| Products cost of sales (exclusive of depreciation and | | | | | | | | , , | | |
| amortization) | | _ | | 236.7 | | 26.8 | | (5.0) | | 258.5 |
| Total cost of sales | | | | 495.1 | | 103.4 | - | (11.2) | | 587.3 |
| Selling, general and administrative expenses (exclusive of | | | | | | | | | | |
| depreciation and amortization) | | _ | | 220.0 | | 38.2 | | | | 258.2 |
| Restructuring, impairment and other charges-net | | _ | | 2.6 | | 1.8 | | | | 4.4 |
| Depreciation and amortization | | _ | | 40.1 | | 5.7 | | | | 45.8 |
| Other operating income | | | | (26.6) | | (27.2) | | | | (53.8) |
| Income from operations | | _ | | 89.8 | | 31.3 | | | | 121.1 |
| Interest expense (income)-net | | 37.6 | | (0.3) | | (0.6) | | | | 36.7 |
| Intercompany interest (income) expense-net | | (25.5) | | 25.6 | | (0.1) | | | | |
| Investment and other income-net | | | | (16.9) | | (1.4) | | | | (18.3) |
| Earnings (loss) before income taxes and equity in net | | | | | | | | | | |
| income of subsidiaries | | (12.1) | | 81.4 | | 33.4 | | _ | | 102.7 |
| Income tax (benefit) expense | | (5.9) | | 27.9 | | 7.1 | | | | 29.1 |
| Earnings (loss) before equity in net income of | | | | | | | | | | |
| subsidiaries | | (6.2) | | 53.5 | | 26.3 | | | | 73.6 |
| Equity in net income of subsidiaries | | 79.8 | | 26.3 | _ | | _ | (106.1) | | |
| Net earnings (loss) | \$ | 73.6 | \$ | 79.8 | \$ | 26.3 | \$ | (106.1) | \$ | 73.6 |
| Comprehensive income (loss) | \$ | 66.4 | \$ | 72.6 | <u>\$</u> | 21.3 | <u>\$</u> | (93.9) | \$ | 66.4 |

Consolidating Statements of Operations and Comprehensive Income (Loss) Year Ended December 31, 2017

| | | | | | | Non- | | | | |
|--|----|--------|----|----------------------|----|----------------------|------|----------|------|----------|
| | Do | rent | | arantor sidiaries | - | arantor sidiaries | Flim | inations | Cons | olidated |
| Services net sales | | | \$ | 518.5 | \$ | 121.7 | \$ | (8.1) | \$ | 632.1 |
| Products net sales | | _ | Ψ | 338.1 | Ψ | 39.1 | Ψ | (4.4) | Ψ | 372.8 |
| Total net sales | - | | | 856.6 | | 160.8 | | (12.5) | 1 | ,004.9 |
| Services cost of sales (exclusive of depreciation and | | | | 050.0 | | 100.0 | | (12.5) | | 1,001.5 |
| amortization) | | | | 257.3 | | 78.8 | | (7.4) | | 328.7 |
| Services cost of sales with R.R. Donnelley affiliates | | | | 207.5 | | , 0.0 | | (,) | | 520.7 |
| (exclusive of depreciation and amortization)* | | | | 18.4 | | 1.1 | | | | 19.5 |
| Products cost of sales (exclusive of depreciation and | | | | | | | | | | |
| amortization) | | | | 221.5 | | 24.5 | | (5.1) | | 240.9 |
| Products cost of sales with R.R. Donnelley affiliates | | | | | | | | , | | |
| (exclusive of depreciation and amortization)* | | | | 30.1 | | 2.2 | | | | 32.3 |
| Total cost of sales | | | | 527.3 | | 106.6 | | (12.5) | | 621.4 |
| Selling, general and administrative expenses (exclusive of | | | | | | | | , , | | |
| depreciation and amortization) | | | | 197.4 | | 38.8 | | | | 236.2 |
| Restructuring, impairment and other charges-net | | | | 4.9 | | 2.2 | | | | 7.1 |
| Depreciation and amortization | | | | 38.2 | | 6.3 | | | | 44.5 |
| Income from operations | | | | 88.8 | - | 6.9 | | | | 95.7 |
| Interest expense (income)-net | | 43.1 | | (0.1) | | (0.1) | | | | 42.9 |
| Investment and other income-net | | | | (3.3) | | (0.1) | | | | (3.4) |
| Earnings (loss) before income taxes and equity in net | | | | | | | | | | |
| income of subsidiaries | | (43.1) | | 92.2 | | 7.1 | | | | 56.2 |
| Income tax (benefit) expense | | (16.7) | | 60.6 | | 2.6 | | | | 46.5 |
| Earnings (loss) before equity in net income of | | | | | | | | | | |
| subsidiaries | | (26.4) | | 31.6 | | 4.5 | | | | 9.7 |
| Equity in net income of subsidiaries | | 36.1 | | 4.5 | | | | (40.6) | | |
| Net earnings (loss) | \$ | 9.7 | \$ | 36.1 | \$ | 4.5 | \$ | (40.6) | \$ | 9.7 |
| Comprehensive income (loss) | \$ | 13.4 | \$ | 39.8 | \$ | 8.9 | \$ | (48.7) | \$ | 13.4 |

^{*} Beginning in the quarter ended June 30, 2017, LSC no longer qualified as a related party, therefore the amounts disclosed related to LSC are presented through March 31, 2017 only. Beginning in the quarter ended September 30, 2017, RRD no longer qualified as a related party, therefore the amounts disclosed related to RRD are presented through June 30, 2017 only.

Consolidating Balance Sheet December 31, 2019

| | I | Parent | | arantor sidiaries | gua | Non- arantor sidiaries | Elir | minations | Cons | olidated |
|--|-------------|--------|----|----------------------|-----|------------------------------|------|-----------|------|----------|
| ASSETS | | | | | | | | | | |
| Cash and cash equivalents | . \$ | 9.0 | \$ | 2.0 | \$ | 6.2 | | | \$ | 17.2 |
| Receivables, less allowances | | | | 130.5 | | 30.9 | | _ | | 161.4 |
| Intercompany receivables | | | | 117.3 | | | | (117.3) | | |
| Intercompany short-term note receivable-net | | | | | | 12.0 | | (12.0) | | |
| Inventories | | | | 9.5 | | 1.6 | | _ | | 11.1 |
| Prepaid expenses and other current assets | | 3.0 | | 9.9 | | 3.0 | | _ | | 15.9 |
| Assets held for sale | | | | 5.6 | | | | | | 5.6 |
| Total current assets | | 12.0 | | 274.8 | | 53.7 | | (129.3) | | 211.2 |
| Property, plant and equipment-net | | | | 16.2 | | 1.3 | | _ | | 17.5 |
| Right-of-use assets | | | | 68.4 | | 12.3 | | _ | | 80.7 |
| Software-net | | | | 55.0 | | | | _ | | 55.0 |
| Goodwill | | | | 438.5 | | 11.8 | | | | 450.3 |
| Other intangible assets-net | | | | 20.5 | | 1.4 | | | | 21.9 |
| Deferred income taxes | | _ | | 8.3 | | 2.6 | | (1.9) | | 9.0 |
| Intercompany long-term note receivable | | 240.0 | | | | | | (240.0) | | |
| Other noncurrent assets | | 3.1 | | 34.2 | | 4.0 | | | | 41.3 |
| Investments in consolidated subsidiaries | | 441.8 | | 51.2 | | | | (493.0) | | |
| Total assets | . \$ | 696.9 | \$ | 967.1 | \$ | 87.1 | \$ | (864.2) | \$ | 886.9 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | _ | | _ | | _ | | _ | | |
| Accounts payable | . \$ | | \$ | 51.0 | \$ | 7.5 | \$ | | \$ | 58.5 |
| Intercompany payables | | 117.3 | | | | | | (117.3) | | |
| Intercompany short-term note payable-net | | 12.0 | | | | | | (12.0) | | |
| Accrued liabilities | | 2.2 | | 100.0 | | 18.8 | | | | 121.0 |
| Total current liabilities | | 131.5 | | 151.0 | | 26.3 | | (129.3) | | 179.5 |
| Long-term debt | | 296.0 | | | | | | _ | | 296.0 |
| Intercompany long-term note payable | | | | 240.0 | | | | (240.0) | | |
| Deferred compensation liabilities | | | | 20.0 | | | | _ | | 20.0 |
| Pension and other postretirement benefits plan | | | | | | | | | | |
| liabilities | | | | 57.3 | | 1.5 | | | | 58.8 |
| Noncurrent lease liabilities | | _ | | 50.6 | | 7.3 | | _ | | 57.9 |
| Other noncurrent liabilities | | 0.8 | _ | 6.4 | | 0.8 | _ | (1.9) | | 6.1 |
| Total liabilities | • | 428.3 | | 525.3 | | 35.9 | | (371.2) | | 618.3 |
| Total equity | | 268.6 | | 441.8 | | 51.2 | | (493.0) | | 268.6 |
| Total liabilities and equity | . <u>\$</u> | 696.9 | \$ | 967.1 | \$ | 87.1 | \$ | (864.2) | \$ | 886.9 |

Consolidating Balance Sheet December 31, 2018

| | 1 | Parent | | uarantor bsidiaries | gu | Non- arantor sidiaries | Eliminations | Con | solidated |
|--|----|--------|----|------------------------|----|------------------------------|---------------------|-----|-----------|
| ASSETS | | | | | | | | | |
| Cash and cash equivalents | \$ | 24.9 | \$ | 5.0 | \$ | 17.4 | \$ — | \$ | 47.3 |
| Receivables, less allowances | | | | 141.6 | | 31.3 | _ | | 172.9 |
| Intercompany receivables | | | | 123.6 | | _ | (123.6) | | |
| Intercompany short-term note receivable-net | | | | | | 60.5 | (60.5) | | |
| Inventories | | | | 10.4 | | 1.7 | _ | | 12.1 |
| Prepaid expenses and other current assets | _ | | _ | 13.5 | | 3.2 | | | 16.7 |
| Total current assets | | 24.9 | | 294.1 | | 114.1 | (184.1) | | 249.0 |
| Property, plant and equipment-net | | | | 29.3 | | 2.9 | | | 32.2 |
| Software-net | | | | 47.8 | | | | | 47.8 |
| Goodwill | | | | 438.5 | | 11.5 | | | 450.0 |
| Other intangible assets-net | | | | 32.6 | | 4.6 | _ | | 37.2 |
| Deferred income taxes | | | | 37.2 | | 2.4 | (29.9) | | 9.7 |
| Intercompany long-term note receivable | | 298.0 | | | | _ | (298.0) | | |
| Other noncurrent assets | | 3.6 | | 35.1 | | 4.1 | _ | | 42.8 |
| Investments in consolidated subsidiaries | | 445.9 | | 106.0 | | | (551.9) | | |
| Total assets | \$ | 772.4 | \$ | 1,020.6 | \$ | 139.6 | <u>\$ (1,063.9)</u> | \$ | 868.7 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | _ | | _ | | | | | |
| Accounts payable | \$ | | \$ | 61.0 | \$ | 11.4 | \$ — | \$ | 72.4 |
| Intercompany payable | | 120.9 | | | | 2.7 | (123.6) | | |
| Intercompany short-term note payable-net | | 60.0 | | 0.5 | | _ | (60.5) | | |
| Accrued liabilities | | 0.1 | | 109.2 | | 16.7 | | | 126.0 |
| Total current liabilities | | 181.0 | | 170.7 | | 30.8 | (184.1) | | 198.4 |
| Long-term debt | | 362.7 | | | | _ | _ | | 362.7 |
| Intercompany long-term note payable | | | | 298.0 | | _ | (298.0) | | |
| Deferred compensation liabilities | | | | 19.5 | | _ | _ | | 19.5 |
| Pension and other postretirement benefits plan | | | | | | | | | |
| liabilities | | | | 50.3 | | 1.0 | _ | | 51.3 |
| Other noncurrent liabilities | | 2.7 | | 36.2 | | 1.8 | (29.9) | | 10.8 |
| Total liabilities | | 546.4 | | 574.7 | | 33.6 | (512.0) | | 642.7 |
| Total equity | | 226.0 | _ | 445.9 | | 106.0 | (551.9) | | 226.0 |
| Total liabilities and equity | \$ | 772.4 | \$ | 1,020.6 | \$ | 139.6 | <u>\$ (1,063.9)</u> | \$ | 868.7 |

Consolidating Statements of Cash Flows Year Ended December 31, 2019

| | | | ~ | | | Non- | | | | |
|---|--|---------|------------|----------------------|-----|----------------------|-----|-----------|-----|------------|
| | P: | rent | | arantor sidiaries | 0 | arantor sidiaries | Eli | minations | Cor | ısolidated |
| OPERATING ACTIVITIES | | | <u>Sur</u> | Joint Its | Sub | <u>statu tes</u> | | <u> </u> | | <u> </u> |
| Net cash provided by (used in) operating activities | \$ | 48.7 | \$ | 66.0 | \$ | (7.1) | \$ | (53.1) | \$ | 54.5 |
| INVESTING ACTIVITIES | <u>, </u> | | • | | · | | • | (==:_) | • | |
| Capital expenditures | | | | (44.5) | | (0.3) | | _ | | (44.8) |
| Proceeds from sale of building | | | | 30.6 | | | | _ | | 30.6 |
| Acquisition of business, net of cash acquired | | | | (4.5) | | | | | | (4.5) |
| Purchase of investment | | | | (2.3) | | | | | | (2.3) |
| Proceeds from sale of investment | | | | 12.8 | | | | | | 12.8 |
| Payments related to disposition of Language Solutions | | | | | | | | | | |
| business | | | | (2.7) | | (1.3) | | _ | | (4.0) |
| Intercompany note receivable, net | | | | | | 48.5 | | (48.5) | | |
| Net cash (used in) provided by investing activities | | | | (10.6) | | 46.9 | | (48.5) | | (12.2) |
| FINANCING ACTIVITIES | | | | | | | | | | |
| Revolving facility borrowings | | 515.5 | | | | | | _ | | 515.5 |
| Payments on revolving facility borrowings | | (515.5) | | | | | | _ | | (515.5) |
| Payments on long-term debt | | (72.5) | | | | | | _ | | (72.5) |
| Intercompany note payable, net | | 9.9 | | (58.4) | | | | 48.5 | | _ |
| Intercompany dividends | | | | | | (53.1) | | 53.1 | | |
| Treasury share repurchases | | (1.8) | | | | | | _ | | (1.8) |
| Debt issuance costs | | (0.2) | | <u> </u> | | <u> </u> | | | | (0.2) |
| Net cash (used in) provided by financing activities | | (64.6) | | (58.4) | | (53.1) | | 101.6 | | (74.5) |
| Effect of exchange rate on cash and cash equivalents | | | | | | 2.1 | | _ | | 2.1 |
| Net decrease in cash and cash equivalents | | (15.9) | | (3.0) | | (11.2) | | | | (30.1) |
| Cash and cash equivalents at beginning of year | | 24.9 | | 5.0 | | 17.4 | | | | 47.3 |
| Cash and cash equivalents at end of period | \$ | 9.0 | \$ | 2.0 | \$ | 6.2 | \$ | _ | \$ | 17.2 |
| | | | | | | · · | | | | |
| Supplemental non-cash disclosure: | | | | | | | | | | |
| Intercompany debt allocation | \$ | (240.0) | \$ | 240.0 | \$ | _ | \$ | | \$ | _ |

Consolidating Statements of Cash Flows Year Ended December 31, 2018

| | Parent | Guarantor Subsidiaries | Non- guarantor Subsidiaries | Eliminations | Consolidated |
|--|---------|---------------------------|-----------------------------------|--------------|--------------|
| OPERATING ACTIVITIES | | | | | |
| Net cash provided by (used in) operating activities\$ | 85.9 | \$ (12.0) | \$ (7.6) | <u>\$</u> | \$ 66.3 |
| INVESTING ACTIVITIES | | | | | |
| Capital expenditures | _ | (35.9) | (1.2) | _ | (37.1) |
| Acquisition of business, net of cash acquired | _ | (12.5) | _ | _ | (12.5) |
| Proceeds from sale of investment | _ | 3.1 | _ | _ | 3.1 |
| Proceeds from disposition of Language Solutions business | _ | 34.4 | 43.1 | _ | 77.5 |
| Intercompany note receivable, net | _ | _ | (30.5) | 30.5 | _ |
| Other investing activities | | (0.8) | | | (0.8) |
| Net cash (used in) provided by investing activities | | (11.7) | 11.4 | 30.5 | 30.2 |
| FINANCING ACTIVITIES | | | | | |
| Revolving facility borrowings | 360.0 | _ | | _ | 360.0 |
| Payments on revolving facility borrowings | (360.0) | _ | | _ | (360.0) |
| Payments on long-term debt | (97.5) | | | _ | (97.5) |
| Intercompany note payable, net | 29.7 | 0.8 | | (30.5) | · — |
| Proceeds from the issuance of common stock | 1.2 | | | _ | 1.2 |
| Treasury stock repurchases | (1.5) | | | _ | (1.5) |
| Debt issuance costs | (1.2) | · | | | (1.2) |
| Net cash (used in) provided by financing activities | (69.3) | 0.8 | | (30.5) | (99.0) |
| Effect of exchange rate on cash and cash equivalents | _ | _ | (2.2) | _ | (2.2) |
| Net increase (decrease) in cash and cash equivalents | 16.6 | (22.9) | 1.6 | _ | (4.7) |
| Cash and cash equivalents at beginning of year | 8.3 | 27.9 | 15.8 | | 52.0 |
| Cash and cash equivalents at end of period | 24.9 | \$ 5.0 | \$ 17.4 | \$ | \$ 47.3 |
| Supplemental non-cosh disalesuwa | | | | | |
| Supplemental non-cash disclosure: Intercompany debt allocation | (298.0) | \$ 298.0 | • | s — | \$ — |
| intercompany debt anocation | (298.0) | 1 \$ 298.U | D — | 5 — | D — |

Consolidating Statements of Cash Flows Year Ended December 31, 2017

| | Pa | arent | arantor sidiaries | gua | Non- arantor sidiaries | Elim | ninations | Con | solidated |
|--|----|---------|----------------------|-----|------------------------------|------|-----------|-----|-----------|
| OPERATING ACTIVITIES | | | | | | | | | |
| Net cash provided by operating activities | \$ | 39.3 | \$ 35.7 | \$ | 14.0 | \$ | 2.4 | \$ | 91.4 |
| INVESTING ACTIVITIES | | | | | | | | | |
| Capital expenditures | | | (26.4) | | (1.4) | | | | (27.8) |
| Purchase of investment | | | (3.4) | | | | | | (3.4) |
| Intercompany note receivable, net | | | | | (14.7) | | 14.7 | | |
| Other investing activities | | | 0.2 | | | | | | 0.2 |
| Net cash (used in) provided by investing activities | | | (29.6) | | (16.1) | | 14.7 | | (31.0) |
| FINANCING ACTIVITIES | | | | | | | | | |
| Revolving facility borrowings | | 298.5 | | | | | | | 298.5 |
| Payments on revolving facility borrowings | | (298.5) | | | | | _ | | (298.5) |
| Payments on long-term debt | | (133.0) | | | | | | | (133.0) |
| Debt issuance costs | | (2.1) | | | | | | | (2.1) |
| Separation-related payment from R.R. Donnelley | | 68.0 | | | | | | | 68.0 |
| Proceeds from the issuance of common stock | | 18.8 | | | | | | | 18.8 |
| Proceeds from issuance of long-term debt | | 3.1 | | | | | | | 3.1 |
| Treasury stock repurchases | | (0.9) | | | | | | | (0.9) |
| Intercompany note payable, net | | 14.7 | | | | | (14.7) | | _ |
| Other financing activities | | 0.4 | | | | | | | 0.4 |
| Net cash used in financing activities | | (31.0) | | | | | (14.7) | | (45.7) |
| Effect of exchange rate on cash and cash equivalents | | | | | 1.1 | | | | 1.1 |
| Net increase (decrease) in cash and cash equivalents | | 8.3 | 6.1 | | (1.0) | | 2.4 | | 15.8 |
| Cash and cash equivalents at beginning of year | | | 21.8 | | 16.8 | | (2.4) | | 36.2 |
| Cash and cash equivalents at end of period | \$ | 8.3 | \$ 27.9 | \$ | 15.8 | \$ | | \$ | 52.0 |

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Donnelley Financial Solutions, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Donnelley Financial Solutions, Inc. and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income, equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 26, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2019, the Company adopted FASB ASC Topic 842, Leases, using the optional transition method.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois February 26, 2020

We have served as the Company's auditor since 2015.

UNAUDITED INTERIM FINANCIAL INFORMATION (In millions, except per-share data)

| | Year Ended December 31, | | | | | | | | | | |
|--|-------------------------|----|-----|--------|----|---------|--------|----------------|-----|----------|--|
| | First | | | econd | | Third | Fourth | | | n x7 | |
| 2010 | Quarter | | _Qı | ıarter | | Quarter | | <u>Quarter</u> | _Ft | ıll Year | |
| 2019 | | | _ | | _ | | _ | | _ | | |
| Net sales | | | \$ | 258.9 | \$ | 195.9 | \$ | 190.3 | \$ | 874.7 | |
| Income from operations | 6. | 6 | | 33.4 | | 32.1 | | 6.4 | | 78.5 | |
| Net (loss) earnings | (1. | 4) | | 17.3 | | 14.7 | | 7.0 | | 37.6 | |
| Net (loss) earnings per share: | | | | | | | | | | | |
| Basic | (0.0) | 4) | | 0.51 | | 0.43 | | 0.20 | | 1.10 | |
| Diluted | (0.0) | 4) | | 0.51 | | 0.43 | | 0.20 | | 1.10 | |
| Weighted average number of common shares | | | | | | | | | | | |
| outstanding: | | | | | | | | | | | |
| Basic | 34. | 0 | | 34.1 | | 34.2 | | 34.3 | | 34.1 | |
| Diluted | 34. | 0 | | 34.2 | | 34.3 | | 34.4 | | 34.3 | |
| 2018 | | | | | | | | | | | |
| Net sales | \$ 255. | 2 | \$ | 290.6 | \$ | 216.9 | \$ | 200.3 | \$ | 963.0 | |
| Income from operations | 19. | 4 | | 36.2 | | 62.1 | | 3.4 | | 121.1 | |
| Net earnings (loss) | 7. | 7 | | 18.9 | | 48.0 | | (1.0) | | 73.6 | |
| Net earnings (loss) per share: | | | | | | | | . , | | | |
| Basic | 0.2 | 3 | | 0.56 | | 1.42 | | (0.03) | | 2.18 | |
| Diluted | 0.2 | 3 | | 0.56 | | 1.40 | | (0.03) | | 2.16 | |
| Weighted average number of common shares | | | | | | | | , | | | |
| outstanding: | | | | | | | | | | | |
| Basic | 33. | 7 | | 33.8 | | 33.9 | | 33.9 | | 33.8 | |
| Diluted | 33. | 9 | | 34.0 | | 34.2 | | 33.9 | | 34.0 | |

Includes the following significant items:

| | | | Pre-tax | | | | | After-tax | | |
|-------------------------------|---------|---------|----------------|----------------|-------------|----------------|----------------|----------------|----------------|-------------|
| | First | Second | Third | Fourth | Full | First | Second | Third | Fourth | Full |
| Year ended December 31, 2019 | Quarter | Quarter | <u>Quarter</u> | <u>Quarter</u> | <u>Year</u> | <u>Quarter</u> | <u>Quarter</u> | <u>Quarter</u> | <u>Quarter</u> | <u>Year</u> |
| | \$ — | \$ — | \$ (19.2) | \$ — | \$(19.2) | \$ — | \$ — | \$ (13.7) | \$ — | \$(13.7) |
| Gain on equity investment | | | ` — | (13.6) | | | | | (9.7) | (9.7) |
| Restructuring, impairment and | | | | | | | | | | |
| other charges – net | 2.1 | 3.8 | 2.8 | 4.9 | 13.6 | 1.6 | 2.9 | 2.1 | 3.3 | 9.9 |
| Share-based compensation | | | | | | | | | | |
| expense | 1.5 | 3.6 | 2.6 | 1.2 | 8.9 | 1.1 | 2.7 | 1.9 | 1.3 | 7.0 |
| Loss on debt extinguishment | | | | 4.1 | 4.1 | | | _ | 3.1 | 3.1 |
| Net loss on sale of Language | | | | | | | | | | |
| Solutions business | | 2.8 | | 1.2 | 4.0 | | 2.1 | | 0.1 | 2.2 |
| Pension settlement charges | | | | 3.9 | 3.9 | | | _ | 2.8 | 2.8 |
| Investor-related expenses | 1.0 | 0.5 | | | 1.5 | 0.7 | 0.4 | | | 1.1 |
| Acquisition-related expenses | | | 0.1 | | 0.1 | | | | | |
| Spin-off related transaction | | | | | | | | | | |
| expenses | 0.4 | _ | _ | (0.4) | | 0.3 | | _ | (0.3) | |

UNAUDITED INTERIM FINANCIAL INFORMATION (continued) (In millions, except per-share data)

| | | | Pre-tax | | | | | After-tax | | |
|-------------------------------|----------------|---------|----------------|----------------|-------------|---------|---------|----------------|----------------|-------------|
| | First | Second | Third | Fourth | Full | First | Second | Third | Fourth | Full |
| | <u>Quarter</u> | Quarter | <u>Quarter</u> | <u>Quarter</u> | <u>Year</u> | Quarter | Quarter | <u>Quarter</u> | <u>Quarter</u> | <u>Year</u> |
| Year ended December 31, 2018 | | | | | | | | | | |
| Net gain on sale of Language | | | | | | | | | | |
| Solutions business | \$ — | \$ — | \$ (53.5) | \$ (0.3) | \$(53.8) | \$ — | \$ — | \$ (38.4) | \$ (0.2) | \$(38.6) |
| Gain on eBrevia investment | _ | | | (1.8) | (1.8) | | | _ | (1.5) | (1.5) |
| Gain on equity investment | _ | | (11.8) | | (11.8) | | | (8.5) | | (8.5) |
| Spin-off related transaction | | | | | | | | | | |
| expenses | 7.8 | 8.4 | 3.7 | 0.2 | 20.1 | 5.6 | 6.0 | 2.9 | 0.1 | 14.6 |
| Share-based compensation | | | | | | | | | | |
| expense | 1.8 | 3.3 | 2.1 | 2.0 | 9.2 | 1.3 | 2.4 | 1.6 | 1.4 | 6.7 |
| Disposition-related expenses | 0.5 | 1.5 | 4.5 | 0.3 | 6.8 | 0.4 | 1.1 | 3.2 | 0.4 | 5.1 |
| Restructuring, impairment and | | | | | | | | | | |
| other charges - net | 0.7 | 2.6 | 0.8 | 0.3 | 4.4 | 0.5 | 1.9 | 0.6 | 0.2 | 3.2 |
| Acquisition-related expenses | 0.2 | 0.3 | | 0.3 | 0.8 | 0.1 | 0.2 | | 0.2 | 0.5 |
| Investor-related expenses | | _ | | 0.5 | 0.5 | | | | 0.4 | 0.4 |

INDEX TO EXHIBITS

- 3.1 Amended and Restated Certificate of Incorporation of Donnelley Financial Solutions, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)
- 3.2 Amended and Restated By-laws of Donnelley Financial Solutions, Inc. (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)
- 4.1 Indenture, dated as of September 30, 2016, among Donnelley Financial Solutions, Inc., the subsidiary guarantors party thereto and Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)
- 4.2 Description of the Donnelley Financial Solutions, Inc. Securities Registered under Section 12 of the Exchange Act (filed herewith)
- 10.1 Credit Agreement, dated as of September 30, 2016, among Donnelley Financial Solutions, Inc., as Borrower, the lenders party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)*
- Amendment No. 1 to Credit Agreement, dated as of October 2, 2017, among Donnelley Financial Solutions, Inc., as Borrower, the lenders party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q dated September 30, 2017, filed on November 2, 2017)
- Amendment No. 2 to Credit Agreement, dated as of December 18, 2018, by and among Donnelley Financial Solutions, Inc., the lenders party thereto from time to time and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated December 18, 2018, filed on December 18, 2018)
- 10.4 2016 Donnelley Financial Solutions, Inc. Performance Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)*
- Amended and Restated Donnelley Financial Solutions, Inc. 2016 Performance Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated May 18, 2017, filed on May 23, 2017)*
- Amendment to the Donnelley Financial Solutions, Inc. Amended and Restated 2016 Performance Incentive Plan dated May 20, 2019 (incorporated herein by reference to Appendix A of the Company's definitive proxy statement on Schedule 14A (file No. 001-37728) filed April 22, 2019)*
- Amendment to Amended and Restated Donnelley Financial Solutions, Inc. 2016 Performance Incentive Plan dated June 27, 2019 (incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 10-Q dated June 30, 2019, filed on August 1, 2019)*
- 10.8 Donnelley Financial Solutions, Inc. Non-Employee Director Compensation Plan (filed herewith)*
- Policy on Retirement Benefits, Phantom Stock Grants and Stock Options for Directors (incorporated by reference to Exhibit 10.1 to R.R Donnelley & Sons Company Quarterly Report on Form 10-Q for the quarter ended June 30, 2008, filed on August 6, 2008)*
- Donnelley Financial Solutions, Inc. Nonqualified Deferred Compensation Plan, dated as of September 22, 2016 (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)*
- Donnelley Financial Unfunded Supplemental Pension Plan effective October 1, 2016 (incorporated by reference to Exhibit 10.6 to the Company's Annual Report on Form 10-K dated December 31, 2016, filed on February 28, 2017)*
- Donnelley Financial Solutions, Inc. Executive Severance Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated May 30, 2017, filed on June 5, 2017)*
- 10.13 Letter Agreement to Employment Agreement, dated as of April 20, 2018, between the Company and Daniel N. Leib (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated April 10, 2018, filed on April 16, 2018)*

- Amended and Restated Employment Agreement, dated as of July 13, 2017, between the Company and Daniel N. Leib (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated July 13, 2017, filed on July 14, 2017)*
- 10.15 Assignment of Employment Agreement and Acceptance of Assignment, dated as of September 29, 2016, between Donnelley Financial Solutions, Inc., R. R. Donnelley & Sons Company and Thomas F. Juhase (incorporated by reference to Exhibit 10.6 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)*
- Waiver of Severance Benefits, dated as of June 1, 2017, by and between Thomas F. Juhase and the Company (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K dated May 30, 2017, filed on June 5, 2017)*
- 10.17 Assignment of Employment Agreement and Acceptance of Assignment, dated as of September 29, 2016, between Donnelley Financial Solutions, Inc., R. R. Donnelley & Sons Company and David A. Gardella (incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)*
- Waiver of Severance Benefits, dated as of June 1, 2017, by and between David A. Gardella and the Company (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K dated May 30, 2017, filed on June 5, 2017)*
- Assignment of Severance Agreement and Acceptance of Assignment, dated as of September 29, 2016, between Donnelley Financial Solutions, Inc., R. R. Donnelley & Sons Company and Jennifer B. Reiners (incorporated by reference to Exhibit 10.8 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016)*
- Waiver of Severance Benefits, dated as of June 1, 2017, by and between Jennifer B. Reiners and the Company (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K dated May 30, 2017, filed on June 5, 2017)*
- Donnelley Financial Solutions Annual Incentive Plan (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated March 2, 2018, filed on March 13, 2018)*
- Form of Performance Restricted Stock Award Agreement (for 2017) (incorporated by reference to Exhibit 10.16 to the Company's Ouarterly Report on Form 10-O dated March 31, 2017, filed on May 4, 2017)*
- Form of Amendment to Performance Restricted Stock Award Agreement (for 2017) (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K dated May 30, 2017, filed on June 5, 2017)*
- Form of Performance Share Unit Award Agreement (incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K dated December 31, 2017, filed on February 28, 2018)*
- Form of Performance Share Unit Award Agreement (for 2017) (incorporated by reference to Exhibit 10.17 to the Company's Quarterly Report on Form 10-Q dated March 31, 2017, filed on May 4, 2017)*
- Form of Performance Share Unit Award Agreement (for 2019) (incorporated by reference to Exhibit 10.25 to the Company's Quarterly Report on Form 10-Q dated March 31, 2018, filed on May 2, 2019)*
- Form of Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.18 to the Company's Quarterly Report on Form 10-Q dated March 31, 2017, filed on May 4, 2017)*
- 10.28 Form of Stock Option Award Agreement (incorporated by reference to Exhibit 10.19 to the Company's Quarterly Report on Form 10-O dated March 31, 2017, filed on May 4, 2017)*
- Agreement regarding title and retention bonus for Thomas Juhase dated March 21, 2016 converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement (incorporated by reference to Exhibit 10.25 to the Company's Annual Report on Form 10-K dated December 31, 2016, filed on February 28, 2017)*
- Form of Director Restricted Stock Unit Award (incorporated by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K dated December 31, 2016, filed on February 28, 2017)*

- 10.31 Form of Restricted Stock Unit Award Agreement for directors converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement (incorporated by reference to Exhibit 10.21 to the R.R. Donnelley & Sons Company Annual Report on Form 10-K for the fiscal year ended December 31, 2004, filed on March 14, 2005)*
- Form of Restricted Stock Unit Award Agreement for directors converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement (incorporated by reference to Exhibit 10.25 to the R.R. Donnelley & Sons Company Annual Report on Form 10-K for the fiscal year ended December 31, 2007, filed on February 27, 2008)*
- Form of Restricted Stock Unit Award Agreement for directors converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement (incorporated by reference to Exhibit 10.23 to the R.R. Donnelley & Sons Company Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed on February 25, 2009)*
- Form of Amendment to Director Restricted Stock Unit Awards converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement (incorporated by reference to Exhibit 10.22 to the R.R. Donnelley & Sons Company Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed on February 25, 2009)*
- Form of Amendment to Director Restricted Stock Unit Awards dated May 21, 2009 converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement (incorporated by reference to Exhibit 10.23 to the R.R. Donnelley & Sons Company Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, filed on August 5, 2009)*
- Form of Director Indemnification Agreement (incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q dated September 30, 2016, filed on November 9, 2016)
- 10.37 Agreement, dated February 17, 2019, by and among the Company, Simcoe Capital Management, LLC and, solely for purposes of Section 2(g) thereof, Jeffrey Jacobowitz (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated February 17, 2019, filed on February 19, 2019)
- Amended and Restated Agreement of Sale and Purchase, dated as of September 6, 2019, between Donnelley Financial, LLC and SECA-NJ, LLC (incorporated by reference to Exhibit 10.39 to the Company's Quarterly Report on Form 10-Q dated September 30, 2019, filed on November 5, 2019)
- 10.39 First Amendment to Amended and Restated Agreement of Sale and Purchase, dated as of September 25, 2019, between Donnelley Financial, LLC and SECA-NJ, LLC (incorporated by reference to Exhibit 10.40 to the Company's Quarterly Report on Form 10-Q dated September 30, 2019, filed on November 5, 2019)
- 10.40 Second Amendment to Amended and Restated Agreement of Sale and Purchase, dated as of September 26, 2019, between Donnelley Financial, LLC and SECA-NJ, LLC (incorporated by reference to Exhibit 10.41 to the Company's Quarterly Report on Form 10-Q dated September 30, 2019, filed on November 5, 2019)
- 14.1 Code of Ethics for the Chief Executive Officer and Senior Financial Officers (incorporated by reference to Exhibit 14.1 to the Company's Annual Report on Form 10-K dated December 31, 2016, filed on February 28, 2017)
- 21.1 Subsidiaries of the Registrant (filed herewith)
- 23.1 Consent of Deloitte & Touche LLP (filed herewith)
- 24.1 Power of Attorney (filed herewith)
- Certification by Daniel N. Leib, President and Chief Executive Officer, required by Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934 (filed herewith)
- Certification by David A. Gardella, Executive Vice President and Chief Financial Officer, required by Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934 (filed herewith)
- 32.1 Certification by Daniel N. Leib, President and Chief Executive Officer, required by Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code (filed herewith)

- Certification by David A. Gardella, Executive Vice President and Chief Financial Officer, required by Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code (filed herewith)
- 101.INS Inline XBRL Instance Document the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
- 101.SCH Inline XBRL Taxonomy Extension Schema Document
- 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document
- The cover page for the Company's Annual Report on Form 10-K for the year ended December 31, 2019, has been formatted in Inline XBRL

^{*} Management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 26th day of February 2020.

DONNELLEY FINANCIAL SOLUTIONS, INC.

David A. Gardella
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

By: /s/ David A. Gardella

| Signature and Title | Signature and Title |
|--|-------------------------------|
| / S / DANIEL N. LEIB | / S / NANCY E. CALDWELL * |
| Daniel N. Leib President and Chief Executive Officer, Director (Principal Executive Officer) | Nancy E. Caldwell Director |
| / S / DAVID A. GARDELLA | / S / CHARLES D. DRUCKER * |
| David A. Gardella | Charles D. Drucker |
| Executive Vice President and Chief Financial Officer (Principal Financial Officer) | Director |
| / S / KAMI S. TURNER | / S / JULIET S. ELLIS * |
| Kami S. Turner | Juliet S. Ellis |
| Senior Vice President and Chief Accounting Officer (Principal Accounting Officer) | Director |
| / S / RICHARD L. CRANDALL * | /s/ Gary G. Greenfield * |
| Richard L. Crandall | Gary G. Greenfield |
| Chairman of the Board, Director | Director |
| /s/ Luis A. Aguilar * | /s/ Lois M. Martin * |
| Luis A. Aguilar Director | Lois M. Martin Director |
| / S / JEFFREY JACOBOWITZ * | |
| Jeffrey Jacobowitz Director | |
| y:/s/ Jennifer B. Reiners | |
| Jennifer B. Reiners | |
| As Attorney-in-Fact | |

^{*} By Jennifer B. Reiners as Attorney-in-Fact pursuant to Powers of Attorney executed by the directors listed above, which Powers of Attorney have been filed with the Securities and Exchange Commission

Certification Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934

I, Daniel N. Leib, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Donnelley Financial Solutions, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2020

/s/ DANIEL N. LEIB

Daniel N. Leib

President and Chief Executive Officer

Certification Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934

I, David A. Gardella, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Donnelley Financial Solutions, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2020

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

CERTIFICATION PURSUANT TO RULE 13a-14(b) OR RULE 15d-14(b) AND SECTION 1350 OF CHAPTER 63 OF TITLE 18 OF THE UNITED STATES CODE (18 U.S.C. 1350), AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Donnelley Financial Solutions, Inc. (the "Company") on Form 10-K for the period ending December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Daniel N. Leib, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 26, 2020

/s/ DANIEL N. LEIB

Daniel N. Leib

President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER

CERTIFICATION PURSUANT TO RULE 13a-14(b) OR RULE 15d-14(b) AND SECTION 1350 OF CHAPTER 63 OF TITLE 18 OF THE UNITED STATES CODE (18 U.S.C. 1350), AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Donnelley Financial Solutions, Inc. (the "Company") on Form 10-K for the period ending December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David A. Gardella, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 26, 2020

/s/ DAVID A. GARDELLA

David A. Gardella

Executive Vice President and Chief Financial Officer

CORPORATE HEADQUARTERS

Donnelley Financial Solutions 35 West Wacker Drive Chicago, Illinois 60601 844-866-4337 www.dfinsolutions.com

ANNUAL MEETING OF STOCKHOLDERS

Information about the Donnelley Financial Solutions Annual Meeting of Stockholders is in our proxy statement, which is available online at www.proxydocs.com/DFIN.

STOCK EXCHANGE LISTING

New York Stock Exchange Symbol: DFIN

INVESTOR RELATIONS

Stockholders, securities analysts, portfolio managers and representatives of financial institutions seeking information about the company should contact Investor Relations at the company's address or by filling out the information request under the "Investors" section of www.dfinsolutions.com.

FORMS 10-K & 10-Q

A copy of our Annual Report on Form 10-K for fiscal 2019 is included with this document and available at our website.

STOCK TRANSFER AGENT AND REGISTRAR

Shareholder correspondence should be mailed to:

Computershare Investor Services 462 South 4th Street, Suite 1600 Louisville, KY, 40202

Overnight correspondence should be sent to:

Computershare Investor Services PO BOX 505000 Louisville, KY, 40233-5000

Shareholder website:

www.computershare.com/investor

Shareholder online inquiries:

https://www.computershare.com/ContactUs

Telephone: Inside the United States: 800.446.2617 Outside the United States: 781.575.2879

TDD/TTY for hearing impaired:

800.952.9245. Operators are available 8:00 a.m. to 5:00 p.m., Central Time, Monday-Friday. An interactive automated system is available around the clock every day.

REINVESTMENT AND DIRECT DEPOSIT OF DIVIDENDS Donnelley Financial Solutions stockholders have the opportunity to increase their holdings through a Dividend Reinvestment and Direct Stock Purchase Plan, which permits either dividend reinvestment, voluntary cash investments or both . Also, Donnelley Financial Solutions stockholders may elect to have their dividends directly deposited electronically in a checking or savings account. Stockholders may request additional information about the Dividend Reinvestment and Direct Stock Purchase Plan and direct deposit of dividends by writing or calling the Stock Transfer Agent.

INFORMATION CONTACTS

Computershare Automated Telephone Response Center may be reached 24 hours a day at 800.446.2617. Operators are available from 8:00 a.m. to 8:00 p.m., Eastern Time, in accordance with the New York Stock Exchange calendar, and 9:00 a.m. to 5:00 p.m. Eastern Time on Saturday, and will perform the following functions over the telephone when a stockholder identifies his or her account by providing a taxpayer identification number, registration of the securities and the address of record:

- information regarding stock transfer requirements
- · address changes
- · replacement of dividend checks
- duplicate 1099 forms and W-9 tax certification forms
- · transcripts of shareholder accounts
- · duplicate reinvestment statements
- requests for dividend reinvestment brochures and enrollment forms
- · information regarding the direct deposit of dividends

Requests for information on topics not covered here should be sent in writing, with reference to the company, to the address noted for the Stock Transfer Agent and Registrar.

SAFE HARBOR STATEMENT

This document includes forward-looking statements. We have based these forward-looking statements on our current expectations and projections about our future results. When we use words such as "anticipates," "believes," "expects," "estimates," "intends," "plans," and similar expressions, we do so to identify forward-looking statements. Our actual results may differ materially from those anticipated in these forward-looking statements, which involve assumptions, risks and uncertainties.

The right solutions in moments that matter



